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ROYAL COMMISSION ON MATTERS OF HEALTH  
AND SAFETY ARISING FROM THE USE OF  
ASBESTOS IN ONTARIO

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ROYAL COMMISSION ON MATTERS OF HEALTH AND SAFETY  
ARISING FROM THE USE OF ASBESTOS IN ONTARIO

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Ontario Room  
McDonald Block  
900 Bay Street  
Toronto, Ontario  
Thursday,  
February 19, 1981  
10:00 a.m.



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ROYAL COMMISSION ON MATTERS OF HEALTH AND SAFETY  
ARISING FROM THE USE OF ASBESTOS IN ONTARIO

VOLUME IV

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THE FURTHER PROCEEDINGS OF THE INQUIRY  
RESUMED PURSUANT TO ADJOURNMENT

APPEARANCES AS HERETOFORE NOTED

DR. DUPRE: Good morning, ladies and gentlemen.

May I warmly welcome on behalf of my colleagues the presenters from the Ontario Association of School Business Officials. The presenters are headed by Mr. Doug Craig, who is accompanied by Mr. Harvey.

Mr. Craig, we are in your hands, sir.

MR. CRAIG: Thank you, Mr. Chairman, Mr. Commissioners.

As you know, we represent the Ontario School Business Officials, and very briefly, that is the organization of nonteaching personnel responsible for the management of the schools in Ontario on a day-to-day basis.

We will not read from our brief, but we would like to make a very brief opening statement.

We would endorse, basically, the statement made by our colleague from the Toronto Board of Education. We are very aware that our responsibilities are to protect the child in the classroom, and we recognize the unique situation, as explained to you, of that child, the teachers, of course, and





MR. CRAIG: (cont'd) the support staff, who are generally the direct employees of this group, and we manage the support staffs throughout the province.

5 The other area that we do wish to make very clear, that the responsibilities of the school boards in the province of Ontario is an autonomous responsibility. There is a general misconception at times that the Ministry of Education directs the work and policies of the boards, but the boards are autonomous within the Education Act. I have heard some suggestions given at this Commission that the ministry directly be involved in the administration of policies within those autonomous districts. I would hate to think of the political ramifications of such a change of policy.

15 As you can understand, the school boards within the province of Ontario are either very large, as could be shown by the Toronto system...and some of the urban boards are quite large. However, on the other side of the coin, there are some very, very small boards in this province. In fact it goes down, I believe, to the fact that there is one board that has sole jurisdiction of one school only.

20 So you have, when you are dealing with the problem of asbestos, you are dealing with a very large mixture of jurisdictions and sizes.

25 The school business officials, through memorandum from the Ministry of Education, we believe have examined all the schools in the province of Ontario, and we have eliminated (sic) programs to reduce the hazard that might be present from asbestos.

30 Now we wish to make it very clear that we are looking at friable asbestos. We are working on programs that will take the possible hazard of being associated with friable asbestos. We do not believe it is realistic to make the statement at all times that we are going to rid the schools of asbestos. Every floor, virtually, in the province of Ontario,





5 MR. CRAIG: (cont'd.) in the schools, is a vinyl asbestos floor tile, and so then you run into the definition of asbestos and its presence in the school from, on one hand where it is contained in very, very solid matrixes such as vinyl asbestos, to the very friable material which is being used for fireproofing structures.

10 To this end, we were very pleased to see in the report submitted at your second meeting, Problems of Measurement of Asbestos, by Dr. Chatfield from the Ontario Research Foundation. It sums up very clearly, I believe, the position of the boards of education, and I am speaking for the ministry, I would think, their thoughts too...and I quote:

15 "It is important to understand that the mere presence of asbestos does not in itself provide sufficient information to determine if a possible asbestos hazard exists. It is necessary to consider the nature of the asbestos-containing material and its use in the building.

20 The United States Environmental Protection Association considers the following factors important: friability, accessibility, exposed surface area, asbestos content, presence in the air plenum or air stream, condition of the material, and obvious water damage.

25 These factors can be readily assessed by someone experienced in asbestos sight inspections, and a decision should be made upon this recommendation."

I believe further that Dr. Muir in his presentation to you made a similar kind of statement.

30 As I said, we do endorse that and to this end, the province of Ontario, shared by the member boards, have and will have expended by the end of 1981, approximately twenty



MR. CRAIG: (cont'd.) million dollars for the correction of asbestos problems in the schools.

5 We believe that the situation was recognized fairly early on. We would recognize that we did come behind some of the work done on the east coast, in the schools in New Jersey, which I believe were the first on it. But we had knowledge of that three years ago, and we believe also that the funding that has been provided to us...we would always like to get a hundred percent on the dollar, but as member boards we are governed by 10 formulae and certain grant regulations and we have had excellent support from the ministry, and I would also say that we have had excellent support from our trustees. We do not know of a case, and none of our members have brought forward a case, where we have been denied either money or forces to take corrective action in any school in the province.

15 So, Mr. Chairman, I would just like to read our recommendations one by one, and we would be prepared to answer questions:

- 20 1. That the Commission endorse the existing program of providing a safe level of asbestos inside the schools of the province of Ontario.
2. That school boards continue to provide good housekeeping and inspection of schools where friable asbestos remains enclosed or encapsulated.
- 25 3. That the Ontario Ministry of Education continue to fund the program for the removal, enclosure or encapsulation of friable asbestos in schools.
- 30 4. That the Commission provide a standard for the allowable asbestos fibre content in the air in schools, recognizing the type, size and concentration of fibres, measurement, identification techniques available, and





MR. CRAIG: (cont'd.) the overall cost to the community.

- 5 5. That industry be encouraged to research and develop substitute materials for friable asbestos, materials for the encapsulation of existing friable asbestos, and filtering systems to remove asbestos from the air.
- 10 6. That the Commission formulate regulations for the removal, transportation and disposal of friable asbestos in the province, together with the establishment of dump sites.
- 15 7. That the owners be required to keep a record of the location and condition of friable asbestos in all buildings, and in that, sir, we are not talking only about the schools.
8. That the health authorities initiate an awareness program to alert the public on the incidence of asbestos in the environment and the possible threats to health.

20 We thank you, sir, for making this presentation and we will be pleased to answer any questions you may have.

DR. DUPRE: Thank you, indeed, Mr. Craig.

25 Since several submissions have touched upon the financing of asbestos control programs, I wonder if I could benefit from your presence here representing the school business officials by making sure that I understand how the control programs are handled financially? They are handled as a capital item, is that correct?

30 MR. CRAIG: Yes, sir. The applications by the boards are sent through on a regular capital request for the year, and for an estimate for future years, and funding has been forthcoming based on that application.





DR. DUPRE: Now, am I correct in assuming that the percentage of costs that is paid varies inversely with equalized taxable assessment per student?

5 MR. CRAIG: To a degree. I'm not an expert in this area and I know there are gentlemen in the audience who might help you later on, but that is right. Basically the wealth of the board determines the amount that the board will pay toward capital building improvement.

10 DR. DUPRE: Is it also fair to ask you this, the board in putting forward its projects for approval has a flexibility within whatever overall allotment is approved for a given year? To favor an asbestos-control program over some other capital item, or vice versa?

15 MR. CRAIG: No, sir. If I understand your question, the application for asbestos problems is completely separated from the regular funding for capital program.

DR. DUPRE: So it's just for formula then? It's just a capital formula that is applied to asbestos control?

MR. CRAIG: But it's the same type of funding.

20 DR. DUPRE: But the funding allocation is quite separate?

MR. CRAIG: That's right.

DR. DUPRE: That's as far as the provincial grant is concerned?

25 MR. CRAIG: Well, it's separate inasmuch as the board will then have to place in their current budgets their share of that cost.

DR. DUPRE: I'm trying to get, you see, at the degree of autonomy that these autonomous boards have in terms of a program.

30 MR. CRAIG: Okay. On the construction side, the degree of autonomy is for justification of the program to



5 MR. CRAIG: (cont'd.) the ministry at the regional level, and at that time, after that justification has been made to build a new school, to renovate, and so on, at that time the funding is forthcoming and it is a shared cost between the local board and the ministry, based on a formula.

10 With the asbestos program, the quests (sic) from the boards have been sent forward without any regard to any other formula or need. It has been a needs assessment done by the boards, it has been not, to my knowledge, ever questioned by the ministry as such, and the funding for those programs has been forthcoming.

15 DR. DUPRE: So the ministry, among other things, has never questioned the kind of control technique, to your knowledge, that the board proposes to use?

MR. CRAIG: To my knowledge, no.

20 DR. DUPRE: It never questions removal as opposed to encapsulation or...?

MR. CRAIG: That is left to the decision of the board itself to make.

25 MR. HARVEY: If I could answer that statement?

DR. DUPRE: Please, Mr. Harvey.

Would you state your first name for the transcriber, please?

MR. HARVEY: David Harvey.

DR. DUPRE: Mr. David Harvey.

30 MR. HARVEY: I think it's true to say that the ministry has not turned down any reasonable request for funds for asbestos correction, up to the present time.

DR. DUPRE: May I be indulged one more question? Listening to the Board of Education yesterday, I was impressed by two points that came forward. One was that there is a good deal of thought that goes into the choice of control options that is going to be followed in the program, as among encapsulation





5 DR. DUPRE: (cont'd.) and isolation, for example,  
and also the priority-setting process of the school board  
officials is also taken into account. I was also impressed at  
a quite different level by what I was told was the procedure  
that the board...this is always the City of Toronto Board...uses  
in letting contracts. I was impressed in part because I have  
been alerted by other submitters that given the amount of  
activity that is being generated with respect to asbestos  
10 control, there is always the danger of fly-by-night contractors,  
there is always the danger of workplace regulations that are  
only enforced in a slipshod fashion because of the speed of the  
program. As I understood the procedure of the Toronto Board of  
Education, given the fairly large number of contractors that  
come forward for bids, they have a sufficient inhouse expertise  
15 to sort out these contractors among the most experienced and  
those that are not experienced but look promising. They, at  
this point, invariably try to give the smaller jobs to the  
inexperienced but promising contractors so as to get a handle  
on their capacity to bring things off.

20 As I listened to all of this, the main question  
that arose in my mind had to do with the extent to which you  
could generalize from the Toronto experience to other boards  
in this province. Now I wouldn't ask you to go to whatever  
board still has only one school in this province. I was  
surprised to hear that given the county school board system  
which in itself is quite an organizational innovation. But  
25 from your knowledge of what goes on in the province, in your  
average, say, country school board, can you enlighten me at all  
about the capacity of the boards to sift through the control  
options themselves?

30 Can you also tell me something about the range  
of choice that such boards may have when it comes to tender?  
You know, if you are out in Hastings County or Namath, do you



DR. DUPRE: (cont'd.) have the luxury of being able to select among a large number of potential bidders that, say the Toronto Board has?

5 MR. CRAIG: Well, I would make some comments about tendering practices first, and I would ask Mr. Harvey to comment upon the second part.

10 The province of Ontario does require boards of education to publicly tender major projects, and I believe it's a condition of nearly every board in the province, even smaller jobs, all tendering, purchasing, is done through the tendering process.

15 With that in mind, I would have to say that there have been programs of asbestos control that have been awarded to the general contracting industry, and I'm sure that industry would defend that process and maintain that on the whole the contractors bidding those jobs are both competent and experienced to carry that out.

20 Getting down into the nitty gritty of it, there is no question that when the tenders, through the public tendering process, come in, that the officials at the boards do and have the ability and have always done it, recommend to the board if they felt, in their judgement, that the contractor was unable either through staff, experience, to carry on any particular job.

So that safeguard is always there.

25 Furthermore, the contractors are required by the provincial memorandum to be bonded. So as to the actual setup in the county board, Mr. Harvey comes from a county board.

DR. DUPRE: Please, Mr. Harvey. Could you tell us which county by the way?

MR. HARVEY: Simcoe County.

DR. DUPRE: Simcoe, yes.

30 MR. HARVEY: I think your question covers the





5 MR. HARVEY: (cont'd.) whole spectrum of problems with regard to the identification and the corrective programs that are required. I think as a general, in general response to that, because of the unique nature of the corrective work, it is evident that there has or is a shortage of qualified contractors, and I'm sure that this is more evident in some areas of the province than it is in the Toronto area.

10 In our own case, of course, up until the present time we haven't had a major concern in this area, but I'm sure that many school boards in some of the more remote areas would have a serious problem in attracting qualified contractors.

DR. DUPRE: Thank you.

Dr. Mustard?

15 DR. MUSTARD: I have two questions which are interrelated. From your knowledge of the system, do you have any idea as to whether the school boards are approaching the removal of friable asbestos and related asbestos on a common kind of policy? (a) are they all using removal as opposed to encapsulation?

20 Secondly, is their policy such that all asbestos which is potentially friable will be removed from the schools over time?

I have a second question after this after I get the answer to this part.

25 MR. HARVEY: In response to that question, I don't think that we could make a general statement of reply to that on the basis that we are not aware of all policies of all boards. The autonomy of the various local school boards dictates that they resolve and determine their own policies and procedures. I can only speak for some of the boards that I am personally aware of, and the policies there appear to indicate, 30 or follow ministry guidelines where both encapsulation and removal are and can be part of the corrective procedures.



5 MR. CRAIG: Yes. I think, building on that, if we went back to a document to give us the greatest guidance it would be the EPA document in this matter. It's called Asbestos-Containing Materials in School Buildings, and I think that as a technical document to adjudicate the conditions that we find in the schools, that we would base our decisions and our recommendations to the board whether to encapsulate or remove.

10 DR. MUSTARD: My reason for the question is, I gained the impression, perhaps erroneously, yesterday from the Toronto School Board, that they were only using removal, and what I couldn't find out from them, whether they intend to remove all asbestos from all the schools, that is potentially friable. It seemed to me if that's the route they are doing, since they are one of the biggest school boards, I would be interested to know whether other school boards are using encapsulation as part of the program, rather than removal.

15 But I think we can get into that information later on.

20 MR. CRAIG: Well, I think...there is no hesitation in saying that a large number of school boards are using as a permanent solution to the potential asbestos problems in schools, encapsulation and enclosure as seen as a permanent solution.

25 DR. MUSTARD: I see. So there is that variation?

MR. CRAIG: Oh, certainly it's a great gamut.

30 DR. MUSTARD: Now, as a citizen who at one time had children in schools, what assurance can you give me that the downstream risks that may result from the programs that you have in place are less than the risk from asbestos? And let me pose my question with two components: (a) can you give me assurance that the fire protection in the school system will





DR. MUSTARD: (cont'd.) be as good as the fire protection that was present with the asbestos story? I would like to know what your evidence is by which you can give me that assurance.

Secondly, what assurance can you give me that any substitutes you are using will not prove to be hazardous downstream, and in particular I am thinking of substances that may be used that may in time vaporize as they age, etc., which are also...could be potential hazardous materials such as, you know, the formaldehyde story and formaldehyde foam is a classical one. So I would like to know what evidence you can give me that the program you have in place is not going to create any risks either in terms of fire, as opposed to what asbestos provides, or what steps you have taken to ensure that there are no downstream potential toxic hazardous substances...from any substitutes that you may be using?

MR. CRAIG: Well, the answer to your question, I guess, is the same as what protections do you have when we build the building initially. There are regulations and fire standards, material standards, that we have to meet. The safeguard that is built into the procedure in the moment...in order to obtain funding, matching funding, from the Ministry of Education, you must have approval of the fire marshall of the province of Ontario for those changes that you are about to make in that building, as to its fire safety. Therefore, any material changes, changes in the ceiling structure, etc., must have his approval, and I have to say that as administrators obviously we are not into the testing of those ceilings, floor assemblies or whatever, or the smoke propagation from those materials. We assume, and I believe confidently we are right in assuming that, that testing has been done by the fire safety authorities.



DR. MUSTARD: The second part? The hazardous developments in the future?

5 MR. CRAIG: I don't know, sir. I can't answer that question. I don't think you can answer that question either.

David would like to have a crack at it.

DR. MUSTARD: Do you want to try it?

10 MR. HARVEY: Well, I would have to agree with Doug on that particular point, in that we can only use materials which currently meet the specifications and the tolerances that are approved by the Ministry of Health, the Ministry of Environment, and all other agencies. We couldn't possibly anticipate that at some future date some of those materials might be declared a hazard...but only to say that we will use  
15 those materials which are considered safe at the present time.

DR. MUSTARD: Are you aware that there is...and as far as I'm aware, and we'll get into this this afternoon... no clear-cut policy adopted within certainly the province of Ontario for screening new substances for their potential  
20 toxicity? It's in the regulations, or at least the Acts to develop this.

So in a sense, that's an unknown as far as you are concerned...? You just don't know what the probabilities are?

25 MR. CRAIG: But on the same basis, it's an unknown as far as building a new school and some of the materials that are going into, currently, construction. So I don't think you can isolate it and say that it is a problem because you are into an asbestos program any one way or another.

30 MR. HARVEY: I think at the present time we are placing some confidence in test work that has been done in the approval of encapsulating materials, if you want to look at that particular agent, in the hope that it will permanently





MR. HARVEY: (cot'd.) encapsulate, for example. A lot of that test work, as I understand it, is moving along, but on a long-term basis I'm sure that many materials are  
5 unknown quantities.

MR. CRAIG: If I could comment, fire safety, as you understand, is built on knowledge and is built on knowledge from fires, and with every fire that takes place in the province, there is an investigation and out of that investigation comes examination of the causes of that fire,  
10 and if they are related to the structure or the finishes in the building, ultimately a testing procedure comes through to correct that situation. That is an ongoing process.

MR. HARVEY: We would have to compliment the Ministry of Education for the efforts that they have made in identifying suitable materials, and going to great lengths to try and confirm the toxicity and the usefulness of those materials on a long-term basis. They are making every effort to correct this very difficult problem.  
15

DR. DUPRE: Dr. Uffen?

DR. UFFEN: This raises the question of scheduling. On the one hand we have had many people advise us that there is a great urgency in the schools, to get on with the job of complete removal. On the other hand, we hear of the possibility that it might not be done well enough if you rush, or that we may not put in adequate substitutes and then discover later on that we have to take out the substitutes or something like that.  
20  
25

Would you like to give us your views about scheduling of protective measures? In a large community like Toronto, they have quite a nicely-planned schedule that they can manage. What about the small communities? Is there an advantage of doing these things in the summer months, taking into  
30 account the interests of the students that are in the schools,



DR. UFFEN: (cont'd.) and being dislocated?

5 MR. CRAIG: Well, if I could make comment. First of all, the urgency is pointed out in the statement we made. It depends on the location of that material, on the urgency. Obviously, friable asbestos sitting eighteen foot up in a gymnasium with secondary school students kicking the balls around is an urgent situation. That kind of thing is not scheduled. That kind of thing is attended to immediately.

10 But you may well have a friable situation within a semi-enclosed spot at this point in time, and obviously that is best done when the school is not occupied.

So very much the conditions on the site will dictate, determine the schedule which you...and it's a matter of priority.

15 DR. UFFEN: Can I have one more?

DR. DUPRE: Please, Dr. Uffen.

20 DR. UFFEN: Could I turn to another problem that is emerging, and you make quite a nice clear recommendation in your number four about that the Commission provide a standard. That's quite a little different issue. The Commission may recommend...for the allowable asbestos fibre content in the air in schools, recognizing type, size, construction, etc. This raises the question of monitoring at low levels of dust. I would like to know a little bit more about why you would recommend this when there is a lot of evidence that measurements are erratic, widely varying depending on where you measure them and when, and whether the building is in use or not when the measurements are made.

25 MR. CRAIG: Well, we recognize that and I think we have said at the end that there is a lot of things got to be in place before that type of standard can come into place.

30 Our reason for requesting it or suggesting it is, that with the best intentions in the world we see



5 MR. CRAIG: (cont'd.) administrating this kind  
of program, you have done everything, and we still hear that  
you haven't taken out all the asbestos, therefore the building  
is dangerous...that is on a community level. How can we argue  
that, from that position? Yes, obviously there is asbestos  
in the building, but is it or is it not hazardous, since  
sooner or later, to justify and make..give people some  
assurance, because they don't have the technical background about  
10 plenum spaces, about the threats in a column, it's a column  
casing inside a fir gypsum surround, to say that it is not  
creating a potential hazard. We do not know. We can't see  
how else you are going to do it, except do something with the  
air and say that sample is safe. Just the same way as we  
ask the health department to measure the wells. If it has  
15 a certain count, the well is safe. If it doesn't have that  
count, the well is unsafe. We see that being projected...maybe  
not initially...but once technology catches up and is able to  
provide some meaningful kind of measurement that we can assure  
the community...because even with the best of intentions in  
the world, having done everything...even if you have removed  
20 every speck that you can see of asbestos in the building, I  
could never, as an architect having gone through that process,  
turn around to my board and say every piece of asbestos has  
been removed from that building. No removal process can do  
that. I could never stand in a court of law and say every  
25 piece is gone. It is absolutely physically impossible, if  
you have seen it applied in the construction industry, you  
can understand the only way you can get it out is to dismantle  
the building right down to the components that it arrived on  
the job site and brush them off and put them together again.

30 MR. HARVEY: We are reasonably confident that  
the technology is there to develop monitoring devices to meet  
this particular need.





DR. DUPRE: Mr. Laskin?

5 MR. LASKIN: I wonder if you can give me, and you may not be able to, some idea of comparative costs...and let me try and explain the problem. Yesterday the Toronto Board, when they made their brief, indicated basically that its control technique was removal, and had an appendix which you may have seen which listed some sixty-odd schools and estimated a cost of removal, sometimes in conjunction with other methods, of around seventeen million dollars. If the basic control  
10 technique were not removal, but were encapsulation, say, and removal was only something used in extreme circumstances, and leaving aside subsequent monitoring costs and so on, is there any way you can give us some estimate of what the comparative cost differential might be?

15 MR. HARVEY: I think we would like a definition of what we really mean by removal. This is causing us some concern.

In our own case, we have tested over five hundred material samples and found sixty percent of those to contain asbestos. Now, we are not...the question is, are we talking  
20 here of just friable asbestos, or are we talking of all asbestos? We have asbestos in the floor tiles, we have asbestos in the ceiling tiles, or in some ceiling tiles, in some floor tiles. We have asbestos in some wall finishes, we have asbestos in some road surfacing asphalt materials, which is intended primarily to strengthen the road surfacing.  
25 Presumably those materials are eroded in time and are fed into the environment.

30 Are we talking here of removable or friable asbestos, of the type that is applied to the decking, roof decking of buildings to provide fire safety? Or are we talking of removal of all asbestos? Which is, to speculate on the removal of asbestos is an almost impossible task.



MR. CRAIG: I think your question is directed to the current programs that removal of the friable, is it?

5 MR. LASKIN: Exactly. Which I understand is friable. That was the common program at the present time.

MR. CRAIG: You know, a rough guide...and this is again the situation as to whether you are working on the ceiling surface that is ten feet from the finished floor or thirty-two feet, you know, changes the economies enormously. But I would say, off the top of my head, it's one third of the cost to encapsulate compared to removal. But there will be instances where encapsulation might even be more expensive, but as a rule of thumb - a third to half the cost.

MR. LASKIN: A third to a half?

15 MR. CRAIG: But that is very subjective depending on duct work, lighting fixtures, you name it. There's a thousand things you can throw in...

MR. HARVEY: In some cases we have the material applied in a plenum behind a suspended ceiling. You have to remove all the ceiling before we can gain access to it.

20 MR. CRAIG: The cost of preparatory work may be twice the cost or three times the cost of the actual work on the material itself, so the cost of encapsulation, the cost of removal is not the major item, you see.

MR. LASKIN: Is the preparatory work roughly the same in both cases?

25 MR. CRAIG: It could be. It could well be.

DR. DUPRE: Just a final question, if I might, Mr. Craig. I want, once again, to try to appreciate the extent to which these autonomous school boards are autonomous with respect to any aspects of the financing of asbestos-control programs.

30 Once again to back up, in terms of the background,





5 DR. DUPRE: (cont'd.) and tell me if my understanding is wrong, the power of school boards to requisition extends only to the operating budget, correct? Which they then pass over to the municipalities and which...for which a corresponding mill rate is struck, does not apply to capital?

MR. CRAIG: Oh, yes. It applies to capital too.

DR. DUPRE: Oh, there is requisitioning on the capital side as well?

10 MR. CRAIG: Oh, yes. Yes. That's right.

DR. DUPRE: Okay. Now, could I ask you this. If a school board wishes to gear up its control program at a higher rate of speed, let us say, than the grant money available from the ministry permits, can the school board requisition the funds that are needed from the municipality and simply push them on into the mill rate?

15 MR. CRAIG: Yes, they certainly can. Because they can do that with new construction. Now, they won't get support later on, but they can do it. The school boards...

DR. DUPRE: So they can do it for asbestos control?

20 MR. CRAIG: And they can certainly do it for asbestos control.

DR. DUPRE: So that being the case, lack of availability of ministry funds in any given year would not necessarily be a barrier to a school board proceeding at any rate of speed it wishes? The only barrier is the willingness of the elected school board members to tax their residents proportionately?

25 MR. CRAIG: That is right.

DR. DUPRE: Thank you very much, Mr. Craig.  
Thank you, Mr. Harvey.

30 May I now greet, if you please, the presenters



DR. DUPRE: (cont'd.) on behalf of ....oh, we have a slight holdup here. I shall now just declare the coffee break for five minutes.

5 - - - - -

THE INQUIRY RESUMED

DR. DUPRE: May I welcome, please, the presenters on behalf of the Asbestos Information Association of North America. The presenter is Dr. Harrison B. Rhodes. He is accompanied by Mr. Arthur Samson.

10 Dr. Rhodes, welcome. We are in your hands, sir.

DR. RHODES: Good morning, Commissioners, Mr. Laskin, ladies and gentlemen.

My name, as the chairman has said, is Harrison B. Rhodes, and I am a technology manager with Union Carbide Corporation, and I am appearing today on behalf of the Asbestos Information Association/North America.

15 I am a member of the executive committee of the AIANA, chairman of its air monitoring committee, and I also serve as the U.S. representative to an international technical group on air monitoring, the Dust Measurement Advisory Panel.

20 As requested in the Royal Commission's guideline for these phase one hearings, my statement will be a brief one, intended to summarize AIANA's written submission dated January 6, 1981.

25 The AIANA is a nonprofit organization representing about fifty companies in the United States and Canada that are engaged in the mining, processing, manufacturing and marketing of asbestos and asbestos-containing products.

30 Although our offices are located in the United States, our members include several Canadian corporations, and in addition most of the asbestos used by our members is mined in Canada, and many of our members also manufacture and market asbestos-containing materials in Canada.



DR. RHODES: (cont'd.) The AIANA is committed to the safe production and use of asbestos, and supports appropriate governmental regulation to protect the health of persons working with this uniquely versatile and valuable material.

To that end we have participated actively in numerous regulatory proceedings concerning asbestos, both in the U.S. and in Canada.

In summary of our written submission, I would like to make two major points in my statement today. The first point concerns the process that the Royal Commission should follow in establishing health goals or standards for asbestos exposure. The second involves the need to adopt reasonable and cost-effective methods of achieving these goals and to avoid unrealistic or unnecessary procedures.

With regard to the first point, the AIANA strongly urges the Royal Commission to establish asbestos-related health goals in a careful and measured fashion, and in particular to avoid the pitfalls of attempting to set goals which seek to create a society totally free from all risk.

The number of potential health, safety and other hazards we face in the modern world is very large, and any effort to provide absolute safety from each of these hazards will quickly run up against the limits of society's ability to respond.

Warren Burger, Chief Justice of the United States Supreme Court, made this point succinctly in his opinion in the court's recent decision to strike down a U.S. occupational regulation for benzene, which, like asbestos, has been shown to cause cancer, but only at exposure levels well above those set by the current standards. The benzene regulation had been predicated on the zero risk philosophy I just described, and Chief Justice Burger had this to say:





5 DR. RHODES: (cont'd.) "When the administrative record reveals only scant or minimal risk of material health impairment, responsible administration calls for avoidance of extravagant. comprehensive regulation. Perfect safety is a chimera; regulation must not strangle human activity in the search for the impossible".

10 In short, we believe that the Royal Commission's objective should be the identification of situations where asbestos exposure poses a significant risk. All of the available evidence should be examined in a detached, scientific manner in order to reach sound conclusions about what types and levels of asbestos exposure present significant health hazards.

15 In conducting such an inquiry, the Commission should avoid the temptation to base its conclusions on limited data and should recognize that similar inquiries are currently underway in other areas, including several U.S. agencies, the United Kingdom and Europe.

20 A full and objective scientific analysis, coupled with consideration of the efforts of other governmental bodies, will help ensure that your conclusions reflect a consensus in the international scientific community.

25 The AIANA is prepared to assist you in any way we can. We are confident that such a process will disclose that there is no substantial evidence of a significant health risk to workers in occupational environments complying with a two fibre per c.c. standard...the standard that currently prevails just about everywhere in the industrialized western world for chrysotile asbestos.

30 At this point I would like to move on to the second part of my statement, concerning the need to adopt reasonable cost-effective methods of eliminating significant



DR. RHODES: (cont'd.) risk situations.

As you know, there is a broad range of control methods available to reduce significant risks, ranging all the way from self-help programs aided by labels and warnings, to the drastic step of a total ban. In our view, your task is to develop a program which is both (1) fine-tuned in the sense that it recognizes that different exposure situations may call for different regulatory responses, and (2) cost-effective - that is, avoids unnecessary or needlessly expensive control procedures.

These points are perhaps best explained by way of an example from our experience in the U.S. As you may know, occupational health standards in the U.S. typically contain requirements such as engineering controls, exposure monitoring, medical surveillance and related record keeping. These requirements are designed for use in manufacturing industries involving fixed work sites with predictable or controlled environments, and relatively steady employment patterns. These kinds of requirements can prove to be very burdensome and counterproductive, however, when imposed on construction and other operations involved non-fixed work sites, high turnover rates and constantly changing exposure conditions.

Because about three-quarters of all U.S. asbestos-related production is consumed in the construction industry, AIANA developed an alternate regulatory approach for these operations, relying primarily on work practices as the most effective means of providing work environments free from significant risks due to asbestos exposure.

In brief, our proposal calls for the classification of asbestos-containing materials into three categories: (a) products that will not release more than two fibres per c.c. under any reasonably foreseeable circumstances;





5 DR. RHODES: (cont'd.) (b) products which will  
not release more than two fibres per c.c. when certified  
work practices are used; and (c) products not falling into  
either of these first two categories. Our proposal calls  
for no regulation of category A products, requirements that  
certified work practices be used when working with category B  
products, and normal regulation of category C products. Our  
approach not only assures worker protection through requirements  
that are easily monitored and enforced, but also creates  
10 strong incentives for manufacturers to develop safer products  
and work practices.

15 Since February, 1980, when we first made the  
proposal available to various U.S. agencies, the concept of  
using certified work practices in lieu of monitoring and other  
traditional industrial hygiene requirements has been endorsed  
by the Occupational Safety and Health Administration's Advisory  
Committee on Construction Safety and Health, and just last  
month by a special two-agency construction industry task force  
made up of OSHA and NIOSH representatives. Because of these  
developments we are very hopeful that future revisions to the  
20 U.S. asbestos standard will include the cost-effective  
regulatory approach relying on certified work practices in place  
of other requirements which are of little value in construction  
and similar work sites.

25 A copy of our proposal, as well as several  
booklets which describe the types of work practices on which  
employers and employees can rely to minimize asbestos exposure  
were appended to our written submission.

30 I hope this example helps to demonstrate that if  
we are careful enough, we can develop reasonable regulatory  
requirements and avoid needless frustration and expense.  
The AIANA is committed to achieving this objective for all  
situations where asbestos exposure poses a significant risk.



5 DR. RHODES: This concludes my statement. Before taking your questions I would like to express on behalf of the AIANA our appreciation for the opportunity to appear before you today, and our hope that we can be of some assistance in this and future hearings. I would be happy to attempt to respond to any questions concerning AIANA's written submission, including the appendices, to the best of my ability.

10 To this end, it may be useful for you to know that my direct experience is in the areas of air monitoring and the work practices. I also have some familiarity with the literature on comparative risks and cost-effectiveness, and I am not a medical researcher and I can only make very general comments on the medical questions.

Thank you.

15 DR. DUPRE: Thank you indeed, Dr. Rhodes.

The points you have made this morning, and, of course, the points that are in your very carefully prepared written submission are all, I can assure you, properly before us.

20 With respect to the thicket that the Supreme Court entered on the benzene case, let me assure you that we are not necessarily reluctant to enter such thickets. I hope I can extract a small amount of sympathy from you if I note that the honorable court rendered a five-to-four decision in which, among the five judges in the majority, there was not unanimous agreement on the reasoning for the decision...which  
25 for a three-person Royal Commission like this one could be tantamount to one commissioner deciding, two commissioners agreeing to make a recommendation, but for completely different reasons.

30 But I say that simply because you have put this properly before us. I just want you to know that the magnitude of the task is understood on this side of the table.



DR. RHODES: Sir, may I comment that the reason for that was not that we were presenting the Supreme Court decision as something that was binding or...it indicates a new area...

DR. DUPRE: Oh, absolutely.

DR. RHODES: ...in the question of regulatory proceedings and how one makes a regulatory decision.

DR. DUPRE: Indeed, I think it is in every sense a marvellous example because it does tell you how complex the judgement calls are when you get into acceptable versus zero risk situations.

If you would indulge me before getting into any of the particular matters that are in your brief, I was wondering if I might ask you this, namely, the extent to which the Asbestos Information Association would be a useful repository of information for us to tap if we are interested in questions like the following: for example, where the world market for asbestos is concerned, to what extent do trends in the demand for asbestos show a direction away from the substance? To what extent are nonessential, in quote, uses of asbestos, to the extent that they are laid down in jurisdictions, altering the nature of the market for asbestos products, and so on?

Is the AIA as an industry association a place where one can at least from the horse's mouth, so to speak, get some information on world-wide trends in the market for the material?

DR. RHODES: The AIA is a trade association and we do not attempt to make detailed...you know, a running summary or a running listing of the asbestos uses in the various parts of the world. However, the U.S. Bureau of Mines does some of that, and I am sure that we have some references or could point you to some references that might





DR. RHODES: (cont'd.) be useful to you in that area. We do not keep a running, you know, monthly or yearly summary in that area. We have a certain amount of background information.

DR. DUPRE: If we can pursue that at some other time, but if you could make a note to send us some of this background information if it's, you know, off-the-shelf material, we would certainly be very grateful for that.

DR. RHODES: We would be glad to do that.

DR. DUPRE: I appreciate that very much, sir.

Dr. Mustard, do you wish to pursue a line of questioning?

DR. MUSTARD: Let me...and you also may not want to or be able to answer this question specifically...since you have a collective view of the industry and obviously have lived through the whole story, in a sense, as an industry of the development of our understanding, etc., one of the things that puzzles one as you look at the question of asbestos as an example of a hazardous substance in society, is the lag time between recognition of it, or emerging recognition of it as a health hazard, and action being taken by industry and society. I wonder if you have any thoughts about this? I am sure you must be asked this question from time to time. Do you have any sort of reflections as to historically why there is such a lag between the evidence being developed in the earlier part of this century and our attention...?

DR. RHODES: I can only give you a personal impression on that. The...a study was done by Dr. Phil Enterline, where he went back to the literature, and crystal-clear hindsight is always better than foresight, and you find that it took a substantial number of years before the general medical community, the industrial medicine people, really became aware of the hazard. It was appearing in a research paper here



DR. RHODES: (cont'd.) and there, but this in general was his finding, and I think that that's about all that I could say on it. There is a lag, an information lag, for any type of information. I would conclude with that.

DR. MUSTARD: I was wondering if it might also be related to a basic pattern of human behaviour. For example, the evidence about smoking being a hazard started to become fairly clear in the 1950's, yet at that time the acceptance by the public of smoking as a health hazard has taken a long lag phase to come into as well, and it's sort of a curious kind of thing which seems to me is an important part of the story, that I can appreciate your difficulty in doing an analysis as to why we are so sluggish in accepting the linkage between hazardous substances and cause.

But that now puts me to the next question. Having...since our society has now recognized the importance of identification of hazardous things in the environment and our lifestyle, and trying to minimize the risks to the population, what criteria do you feel should be applied to any new substance that is being introduced into the workplace in this society? In other words, it's probably not too acceptable to try to detect new hazardous substances by putting them in and then seeing what happens to the population and the work force. As you know, there are strong directions be taken to set up criteria for assessing a new substance, and I wonder if you have any views about what those criteria should be? Before you say it's clean and does not have to undergo strict monitoring, etc., in society?

DR. RHODES: I have a little trouble relating that to the subject of the hearing...

DR. MUSTARD: Well, I'm going to come back to the subject of the hearing in a moment, because I'm trying to get at the question of acceptable risk as related to a new substance.



5 DR. RHODES: Okay. The manner in which the U.S. has done...I think you probably are aware...the Toxic Substances Control Act, which requires a registration, that requires a pre-manufacturing notice, it requires quite extensive testing and research at all stages of the introduction of any new materials. Now, it has not been in effect long enough to find out whether it just totally stifles development...how it is going to work, but that is the approach that they have used.

10 DR. MUSTARD: I guess the point I'm trying to get at...some of that direction is that if the substance is proven to be carcinogenic in animal tests, then the question of it being introduced into a process, I think, becomes a very difficult one. Is that not right?

15 DR. RHODES: If it's a food substance, yes.

DR. MUSTARD: But you can't get at it in terms of the industrial world?

20 DR. RHODES: I will have to admit I...RETRA, TOSCA are two areas that I am not current in and I am not really qualified to speak in detail.

25 DR. MUSTARD: Fine. I guess what I was really trying to get at is, a large part of your argument is the concept of acceptable risk and the dilemma I face as a commissioner is, what are we going to adopt as acceptable risk for new substances and what are we going to accept, if we do accept it, as acceptable risk for things that are already in place? You can have grandfather clauses, but you are also dealing with health hazards. It seems to me that the acceptable risk argument must be...I mean one has to face this dilemma of what we do with new substances versus things that are already in place. But I take it you don't have any kind of philosophy about how that should be approached?

30

DR. RHODES: The question of acceptable risk is





5 DR. RHODES: (cont'd.) one that I have been involved in in another area, and there are no answers at this point in time. It's a very, very difficult question, but it's one that I don't think we have any alternative but grappling with it. We have only so much of society's resources that we can use to reduce risk, and there is no way we are going to go to zero risk, in my opinion, and we really ought to allocate it into areas that will do the most for us.

10 Now it may be of interest to you, the Nuclear Regulatory Commission in the United States has a massive program underway right now to work at arriving at a safety goal in the particular relation to nuclear reactors and the nuclear power industry, but it has much broader overtones and it's really...I'm struggling here...the question of what is acceptable risk is really a socio-political decision.

15 It is not even clear who should make the decision. Obviously it's got to be the people's representatives in one form or another.

20 The reason that I bring it up is not that I have an answer, but the point was that it is an area that I don't see how we can avoid grappling with in arriving at realistic regulations.

I wish I had an answer for you, but....

25 DR. MUSTARD: Thank you. I realize this is not the thesis that you are supposed to answer here. I would like to take the advantage of a couple of other questions while you are here, which again may not be appropriate for you to try to answer. But because you are associated with a very broadly-based industry system using asbestos through a variety of constituencies I am interested in the question of what problems the industry may face in relation to compensation and liability, for example with the establishment of the linkage between asbestos and

30 health effects. Has the industry had any thoughts about the



DR.MUSTARD: (cont'd.) question of compensation in relation to members of the work force who have come up with health problems in relation to asbestos, or have you left that entirely to the jurisdiction of the Compensation Board arrangements of the various states in the United States?

The second question is, I believe in some of the states you can get lawsuits in this arena. Have you had any lawsuits related to health effects of asbestos from either workers or members of the public? Do you know about that, in the industry in the United States?

DR. RHODES: I thought it was fairly well known that there's literally thousands of lawsuits, third-party liability. As far as how that might be handled, I'm not really competent...

DR. MUSTARD: You don't know the outcome of any of those?

DR. RHODES: They go both ways. There are settlements and out-of-court settlements, and jury trials and thrown out of court. There is no real pattern. It's a difficult, very, very difficult question.

That's the best I can do for you in that area.

DR. MUSTARD: Thank you.

DR. DUPRE: Dr. Uffen?

DR. UFFEN: Dr. Rhodes, I would like to ask you a couple of questions in two areas. The first one is in the region of air monitoring, because you mentioned that you have quite a bit of experience in this..then I'll later on come to the question of these work practices regulations that your organization has been recommending.

It seems to me, since I've become involved in this, there is a fundamental dilemma that regulations all over the world are based on a count of so many fibres per cubic centimeter or milliliter, or a weight measurement if not a





DR. UFFEN: (cont'd.) number of counts. This implies that we have reliable methods of making the measurements.

5 There are two areas of concern, or more than two, but two easily identifiable...the workplace where the men are exposed to asbestos as part of their work, and the other one, as you may have learned this morning, in our public buildings like our schools. Would you like to comment on what appears to me to be this dilemma of the imprecision of the availability of monitoring, and the regulatory process based on it?

DR. RHODES: I would like to try. I don't want to get into...

DR. UFFEN: You have had a lot of experience, so...

15 DR. RHODES: ...too many technical details on it, unless you want me to.

We presented...if I can find our note here...find the page...on page twenty-four of the..this was...we submitted to you, it's Ontario Ministry of Labour document that we also submitted to this Commission.

DR. UFFEN: Have I got a xerox of it?

20 DR. RHODES: Yes, probably.

DR. UFFEN: Well, go ahead.

DR. RHODES: We show there on the table on the righthand side, expected variations in fibres per c.c. For example, at one fibre per c.c. which is an actual concentration in the workplace, a variability between point three six and two and a quarter...ninety-five percent of the results will fall within that range.

25 Now, if you go down in the range at point five, it's varying between point one eight and one point one two. At point two, it varies between point oh seven and point four five.

30 Now these, I know Gerry Chase, who put those



5 DR. RHODES: (cont'd.) together, was here earlier. These are the right order of magnitude. There are some things that you can do with them in your sampling strategy, but this is the kind of thing that you are faced with in a monitoring situation.

Now, the workplace monitoring is done with the membrane filter methods, that I'm sure you are aware, and I don't see any particular way to greatly reduce these levels.

10 Let me interject here that I have read Eric Chatfield's presentation and I have, I think he does a very objective job on reporting the real situation in ability to monitor. Eric has a tendency to go the route where he reduces all the asbestos to fibrils rather than measuring it as it is actually in place, but that's a technical problem.

15 What I am really trying to say, I think, is that the kind of numbers that you see here on page twenty-four, in my judgement, are reasonably representative of what you can do with the method. It tells you really whether the concentration is small, medium or large, or very large, and the idea that you can measure very accurately at a tenth of a fibre per c.c. or point five fibres per c.c., in my judgement, it just can't be done.

This is the kind of...

25 DR. UFFEN: In order to translate that for me... that's the sort of situation that you are likely to find in a public building or a school?

DR. RHODES: Oh, no. No. This is workplace.

DR. UFFEN: This would be workplace?

30 DR. RHODES: You can't...I'm sorry...if you've got a half of one fibre per c.c. in a public building, it's too much. You can determine whether it's in that general range.



DR. RHODES: (cont'd.) I want to add you can also do things by multiple sampling, repeated sampling, that sort of thing.

5 Now, when you get down into the tenths of a fibre, hundredths of a fibre, thousandths of a fibre, which did occur in the general public, in the buildings...I would ask, first of all, that there is a background level, a natural background level which has been here as long as the earth has been here. That's a little exaggeration, but basically it's not from  
10 man-made activities. It's from rocks and our environment, and you have to be able to distinguish that from what may be man-made.

The electron microscopists have finally concluded...and I think this is almost universal...that to do  
15 environmental monitoring where you don't know the source of asbestos, you have to use the transmission electron microscope fitted with some rather fancy equipment to do x-ray diffraction and chemical analysis. Even then you have to have some computer-enhanced readins and readouts to run your numbers into.

20 If you want more on this...this is Eric Chatfield's area.

DR. UFFEN: I would just like to ask this, sir. In a public building like a school...as you realize, this is one of the issues that we are facing right at the moment...is it a waste of time to monitor many, many schools all the time? The air monitoring? Is it a useless exercise?

25 DR. RHODES: It's a very slow and expensive exercise. I would think that a very limited monitoring in situations where you have evidence that there may be some disturbed friable material, but to go in after a contractor has gone in and taken everything out or sprayed it, I don't  
30 think you can distinguish from background.

Does that answer your question?





DR. UFFEN: Yes, yes. This is very helpful.

DR. RHODES: Where there is some there, you may not be able to say exactly how much is there. But you can get an indication.

DR. UFFEN: We could pursue the details and scientific procedures at some other time, rather than now, but that is an issue that is currently of interest.

Could I move now to the other question. You have recommended these certified work practices, and I'm very interested in these pamphlets and I've got a couple of questions.

To what extent were the workers involved in the preparation of these? To what extent have they assured you that what you regulated can actually be implemented?

DR. RHODES: The testing...those are based on various amounts of testing, and those, I might add, are put out at different times by different organizations. The ones by the AIANA are some five, six years old, and they are more general, as you may know. They are fairly broad-based.

The ones that are most relevant are the ones on the AC pipe, the AC sheet, the resilient flooring that were done in the last year or two, with much more testing and much more direct involvement. Now in answer to your question on the workers, they were doing the jobs that were being monitored.

DR. UFFEN: But did they have an opportunity to say whether they thought it was worth the powder to blow it to hell, or not?

DR. RHODES: I can't answer that. I would assume that if they were not, they would not be followed.

DR. UFFEN: I believe in the United Kingdom, when they have gone through a similar exercise, that they involve representatives of the workers in the process. Do you



DR. UFFEN: (cont'd.) know whether I've understood that correctly?

DR. RHODES: I don't know.

5 Your point is well taken. I would like to add that these are basically examples. The process of trying to get OSHA to certify or agree that they are certified work practices and that sort of thing is down the road. They have been very much interested in the approach and the principle, but the formal collecting of evidence, 10 the demonstration that it's enough evidence, and the certification is something that has been proposed. It's not in action. These are work practices that were put together by consultants who were hired to do the testing and prepare the reports.

15 DR. UFFEN: One final...

DR. RHODES: I might add, they have been quite widely disseminated and are being used in places like California, which has an information...a worker information education requirement in their OSHA standards, by the contractors.

20 DR. UFFEN: Finally, as I looked at them, I noticed that there aren't any for the renovation and demolition industry. Has your association contemplated this area of concern?

25 DR. RHODES: We have, I don't believe, any members from the renovation and demolition industry. They have their own association and their own activities. Beyond that, I can't answer that.

We have not basically gotten into that, and that again is a very difficult area because every job is different.

30 DR. UFFEN: Thanks.

DR. RHODES: Shipbuilding is another area which is pretty much on their own. They are not involved with our organization.



DR. DUPRE: But you do have members from the construction industry?

5 DR. RHODES: We have members from the people who manufacture the construction products. I don't believe we have ...the work practices...while we were developing the original work practice approach, we had a group that was represented by the representatives from half a dozen of the construction industry organizations...I was chairman of that sub-committee...so that we did have considerable construction  
10 input.

Now, the asbestos-cement pipe work practice was developed largely by the Asbestos-cement Pipe and Producers Association, which has a lot of the construction people involved.

15 DR. DUPRE: Because some of the points in your written submission that struck me, of course, related to the standards that AIA has developed on product categorization.

DR. RHODES: Proposed standards.

20 DR. DUPRE: Right. Precisely with the whole problem of non-fixed place industry in mind. Could you perhaps enlighten me in any way you could on how you developed these standards? I think you mentioned that you may have liaised with the construction industry and so on, but could you elaborate a little bit on how your model standards came to be?

25 DR. RHODES: We tried to address the problem. We saw a major problem in a monitoring type standard in the construction industry and in another that was a particular concern, was the drilling mud industry, which you do have in parts of Canada, where the whole concept of having to  
30 monitor a site where they may use asbestos for three or four days, and then send it off to a laboratory and you get your





DR. RHODES: (cont'd.) result and the site is no longer there and the man is no longer employed by you. We got together, got a group from six or seven of the construction contractors organizations, discussed the problem extensively, and generally...I don't really know how to answer your question in that this was a lot of discussion and this was evolved as a way that we could see to provide reasonable protection in a manner which didn't require a whole army of people taking, trying to monitor in the construction industry. What we would do or what we would visualize doing, even with the inaccuracies and the uncertainties in the monitoring, is do... in order to get a work practice certified you would have to do enough monitoring to get a reasonable picture of the range of concentrations and the probability that you would exceed a particular level a hundred percent of the time.

This is a fairly major task. On the other hand, to try to do that constantly for every work site becomes... you know, there just aren't that many industrial hygienists around to do the job, and it's a very, rather tricky job to do on a construction site anyway.

We...as I say...I'm not really sure how to answer your question. It evolved from looking at that problem and looking at the problem of how can we keep the concentrations, the exposures down and in a manner that is reasonable.

It also has the advantage that we noted that let's say....I know I can only speak for the U.S. manner of enforcement...the OSHA inspector arrives at the site, and he normally is not an industrial hygienist...he decides that asbestos is being used there so he needs to get a monitoring, so he has to get an industrial hygienist to come out and spend a day monitoring at the conditions that take place, and then he has to wait for the results to come out of Salt Lake



DR. RHODES: (cont'd.) City, and it's ancient history by the time he gets the results and it's a lot of effort.

5 The concept that we introduced was that the user or the contractor's obligation was to follow accurately and carefully the prescribed work practices, and all the inspector would have to do would be to ascertain whether or not the work practices were being followed. He could pretty much do that by talking to the fellows who were doing it, and that's a much, much simpler way to determine compliance than all of the air monitoring.

10 You never know, you know, on that particular day, you may get one result; if you did it the next day, you would get a different result. This was our objective...

15 DR. UFFEN: Monday or...I think...I'm losing track now...Monday or Tuesday, the Quebec Asbestos Mining Association gave us a presentation and in the appendices there for us to see, and presumably, I would hope, for the worker to see, they had charts for five or six mills where you would expect the problem to be quite severe. Now, they were able to monitor...that was a time-averaging scheme...but they showed on these charts the fluctuations, the time averages, you could see seasonal variations in it. That evidence, to me, suggested that if they can do that in a mine and a mill, that it ought to be done elsewhere, manageable elsewhere.

20 Are you familiar with their particular case?

25 DR. RHODES: I have not seen their numbers. I had their presentation, their original presentation. Did they have confidence limits on their numbers?

30 DR. UFFEN: In tables, not right on the charts. But I know there are criticisms that you have to check and see where things were measured and were they measured in a desirable or undesirable place, and so on, but for several months on end they could keep the count to below one fibre per



DR. UFFEN: (cont'd.) cubic centimeter.

There were other periods of several months where they couldn't. There were excursions that would take place for a few hours or something like that, but they were there to be seen.

It also suggested the possibility, although nobody has given me much assurance on this, that you could have an alarm system that would tell you when the dust counts had got out of hand, and tell people to stop working.

DR. RHODES: Now, you've got a couple of areas here. As far as monitoring at a fixed location where pretty much the same operations are going on all the time, as a dumping station, for example, where bags of asbestos are being dumped into a hood, you can monitor there and get fairly within the limits of the method, and I presume those numbers were ones and twos and threes and that general range, rather than point ones and points twos?

DR. UFFEN: Oh, yes.

DR. RHODES: You can get a reasonable pattern... again, small, medium and large, but, you know, within workable limits.

When you go out on a construction site, they banned asbestos in drywall taping now in the U.S. basically, but you go into an apartment building where they are sanding the drywall and one day it may be windy and half the windows are open with four guys in there, and the next one down, the next block down, may be on a day with everything closed up. Your conditions...what I am really saying...on a construction site your conditions change within a day and so rapidly from day to day that trying to do comprehensive monitoring for a particular type of for a particular location, to know exactly what's at that location, is an exercise in futility in my opinion.

DR. UFFEN: Okay. But in the manufacturing area, fixed sites...?





DR. RHODES: Fixed site? Yes. Within the kind of numbers you are indicating here.

5 DR. UFFEN: Could you keep down to one fibre per c.c.?

DR. RHODES: You mean could you monitor or can you meet a one fibre per c.c. standard?

DR. UFFEN: Can you manage it?

10 DR. RHODES: In some locations, yes; in some locations, no. That's too general a question.

DR. UFFEN: What do you think of that thing I flew about alarm systems?

15 DR. RHODES: Okay. I wanted to come back to that. If you are talking in one case about the membrane filter monitoring, which is at best a fairly cumbersome process...now there are devices out, and it's again not an area that I'm really familiar with but we could provide...the Canadian people, the QAMA have been very active in this area...where you don't get a direct readout in fibres per c.c., but for a fixed location you can calibrate these devices. Turner Brothers has one where you kind of blow in an air sample and  
20 it gives you a reading...a Tyndallometer, scattered light effect for one thing. There is a fibrous aerosol monitor that the U.S. agencies work with quite a bit. The problem with it as a general direct reading instrument is that you have to calibrate it for every situation, and it's easier...in  
25 order to do that you've got to do all the membrane filter, and it turns out that they are about standoff.

30 But there are devices...I know of one plant that has one in their bag house...which, for the same type of dust, whether it be mostly fibre or whether it be asbestos-cement dust, that you can calibrate and you can set up with an alarm system.

But I'm back to ...



5 DR. UFFEN: Could I ask you about one specific one which I had never heard of before, but the Quebec people mentioned a beta counting technique where a radiation detecture, and the beta particles would be absorbed in proportion to the density of the dust.

DR. RHODES: What's the name of that one? I know of it.

10 DR. UFFEN: You know of it? Would your association be sponsoring research in that region?

DR. RHODES: No, we are not.

There is a lot of research going on. The QAMA is doing more sponsoring of research in that area than...

15 DR. UFFEN: This is a wonderful opportunity to pick your brains as an experienced person, so I hope you don't mind if I pursue this.

DR. RHODES: I'll be glad to do what I can.

20 DR. UFFEN: I visited Cricklewood in the United Kingdom, and they had a portable monitoring system, a jeep... or a land rover, pardon me, a land rover, with the equipment so that they could request in a few hours, go to a site, make the measurements and have a report the next day.

DR. RHODES: Using membrane filter...?

25 DR. UFFEN: Yes, it was membrane filter and it had a great, big vacuum and bags and...it was a cumbersome thing, but it is still in the test stage, I believe.

30 DR. RHODES: Well, membrane filter...it takes oh, fifteen minutes to half an hour to count a filter. A lightly-loaded one can be done in less time than that, and a person can count filters for about four hours a day and then their eyes begin to cross. So if you want to put enough resources into it, you can speed up the process. In the U.S., most of their stuff, the federal stuff goes to a laboratory in Salt Lake City.



DR. RHODES: (cnt'd.) I don't know if I'm answering your question or not.

5 You've got to sit there, you've got to take the section out of the filter, you've got to clear it, and then you've got to sit there and count, at low levels, a hundred fields, through a microscope. It takes a fair amount of experience to get counters which will give you results which are reasonably reproduceable.

10 DR. UFFEN: We do this as a regular, routine activity in other walks of life. You mentioned the Nuclear Regulatory...there's no question about you do it there.

DR. RHODES: It's done. The companies do it. We monitor our plant once a month in that manner. But it's slow and it's fairly expensive compared with mixing it in a bottle and reading the color.

15 But there is no device that I know of which will give you a readout in fibres per c.c. longer than five microns without extensive calibration and recalibration in each differencet dust cloud situation.

20 DR. UFFEN: Are you participating in an international intercalibration of laboratories?

DR. RHODES: The Dust Measurement Advisory Panel has members from six or seven countries. This is a function of the Asbestos International Association. And we spent about two years putting out the proposed or the International Reference Method that Eric Chatfield refers to in his discussion, in an attempt to standardize the procedure, the membrane filter method, so that the various countries would at least try and come closer to getting the same answers. There was an amazing amount of equipment difference that had quite significant impacts on the results.

30 The problem of how to standardize the counter... and these are not all little needles that sit there and...like





5 DR. RHODES: (cont'd.) rows of soldiers and  
you can count them. There's literally several hundred decisions  
that have to be made, and that problem we are...in specific  
answer to your question...we are in the process now of trying  
to develop training slides where...that are real slides, which  
a number of counters have looked at and have reached agreements  
on what the counts are. The U.S. NIOSH, National Institute  
of Occupational Safety and Health, has what they call the PAT  
10 program...Proficiency Analytical Testing...and they have about  
two hundred laboratories that receive samples, I think it's  
every month, and count them, and then the results go back  
and they get a rating whether they are satisfactory or  
unsatisfactory.

15 Graham Gibbs, who I mentioned to you, was  
working on a standardization program for a lot of the Canadian  
laboratories, and he moved on to other things.

I mentioned him to you, Dr. Uffen.

DR. DUPRE: Dr. Mustard?

20 DR. MUSTARD: Can I ask if you have any  
information in another area which you may or may not, at  
least give us some guidance? One of the issues is, of course,  
the question of substitutes for asbestos, are there things which  
you can use, and what's the essential use of asbestos in  
society? I wonder, do you have data about the suitability of  
substitutes, the problems of substitution and the areas where  
25 you have had to strip things right down, asbestos is  
absolutely essential?

DR. RHODES: Well...am I too far from the  
microphone?

DR. MUSTARD: Not for me.

30 DR. RHODES: Okay. There are a couple of aspects  
to that. The asbestos in the United States particularly, for



5 DR. RHODES: (cont'd.) example, has had rather massive publicity since about 1960 or thereabouts, and very few of the companies who make asbestos-containing products have  
10 any vested interest in using asbestos. They would rather get rid of it if they could, because it's...number one, it was the first health regulation under OHSA...it's a real hassle to use it. Even if you are doing everything to comply with the regulations and beyond to protect your workers, it has had  
15 so much publicity that it's a very feared substance. Yet in all this time, there has been some substitution, but by and large there are a lot of products that still contain asbestos and obviously if there were any easy substitute, it would have been used.

20 Now the EPA had symposium on substitutes back last summer, and the proceedings for that are available. There were various opinions expressed there.

I think at the bottom line, if you are willing to spend enough money, there is a substitute for anything.

25 We could go to electric cars and not use gas...I'm not being facetious, but the question of substitutes is, in part, how far are you willing to go and how much penalty you are willing to pay. In the asbestos area you have to be just a little careful in that a lot of the substitutes tend to be other fibrous materials. It's by no means settled medically what parameters present a biological hazard in long, thin  
30 materials.

DR. MUSTARD: That raises another question. Again, you said you don't have the medical background for this, but one of the points that was made by the Quebec Asbestos Mining Association to us, and medically it makes sense, the fibre by itself may not be the problem. It's what associates  
35 with the fibre either in the body or externally which may be extremely important in whether the fibres become carcinogenic.



DR. MUSTARD: (cont'd.) They made the point about substances used with asbestos in terms of making them more carcinogenic, or less carcinogenic, or even non-carcinogenic. Do you have any information about that in your system, your information system? Or is that just some material that we will have to track on the Canadian scene because of their research?

DR. RHODES: I know that there has been one organization that has a surface-modified material which alters the cell toxicity, but as of this point in time they have no animal results. The QAMA may be involved in some of that. I think that would be the most fruitful area for you to follow.

Cell toxicity is only part of the problem.

DR. MUSTARD: That's right.

DR. RHODES: Nobody really knows what the mechanism is, or, as you say, indicate, there is speculation that the real problem with the synergism with smoking is that the asbestos serves as a point of concentration for the carcinogens in the smoke...a source of irritation and a point of concentration. But no, I don't believe any medical authority has said unequivocally that he knows how asbestos causes cancer.

DR. MUSTARD: And they never know unequivocally anyway.

If I can go to a third question, it's a different one, and it's this: One of the dilemmas that I see is, I guess it comes back to your acceptable risk argument, and from your experience of what is taking place across the North American scene, do you see different jurisdictions adopting different acceptable risk levels for, say, the public at large that works in an office building...I think you heard us discussing the school question here this morning...versus the level of exposure that a worker should be subjected to who works in a place where it's either mined or manufactured?





DR. MUSTARD: (cont'd.) Or should there just be one acceptable risk level used throughout the system?

5 In other words, should two fibres per c.c., would you argue that that should be the acceptable risk for all of us?

10 DR. RHODES: I wouldn't argue one way or the other. The general approach that I have seen is that the level of risk which is acceptable to the general public is substantially lower than the level of risk which is acceptable occupationally. Now whether that's still the case, whether that's the appropriate social decision now or not, I'm not prepared to give you an opinion.

15 What they normally do is look at the general public, the public in the immediate vicinity and the most highly exposed individual in looking at regulatory considerations.

I have to come back to the point, there is no place that I have seen that there is any real consensus developed at this point in time on what levels are socially acceptable in those areas.

20 The NRC proceeding, which I referred to, is developing a massive record and in my judgement the kinds of numbers that they come up with will have a bearing on what the other regulatory agencies will do once these are developed.

DR. MUSTARD: Thank you.

25 DR. RHODES: I wish I had a set of answers for you, but there aren't any answers, really. It's something that you think about as you try and rationalize what levels are appropriate, in my opinion.

30 DR. DUPRE: Dr. Rhodes, if I might turn to another line of questioning, you are very probably aware that there is some evidence to the effect that as an occupational hazard, asbestos has caused graver problems in manufacturing and processing than in mining. You know, the quality of any of the



5 DR. DUPRE: (cont'd.) evidence that we have is, needless to say, not perfect. But this is the point on which a number of authorities agree, the Quebec Asbestos Mining Association doesn't argue with it.

10 I'm simply interested in your own views to the extent that you can help at all, on why this might be so. Now, on the medical side, of course, the QAMA comes up with the hypothesis that cocarcinogens may be part of the explanation that would account for more hazardous situations in manufacturing and processing.

15 When, as I think I understood you in the dialogue that I think began with me and then took you into the more technical side of things with Dr. Uffen. I believe I heard you say that in your view there is nothing, at least technologically, that would prevent a manufacturing or processing operation from simply using the same measurement, and for that matter, precautionary measures as mining. Was I correct in understanding you that way or did I get...?

20 DR. RHODES: Yes. I think basically as you don't expect great accuracy, you can control in the fixed work site situations with the membrane filter method, as long you don't expect great accuracy and recognize its limitations.

As far as your point about why there may be differences in different uses, I really am not competent to get into that. That's medical speculation.

25 DR. DUPRE: Well, may I on behalf of my colleagues, Dr. Rhodes, thank you most warmly for your presence here this morning, and the Commission will now rise until two p.m.

Thank you again very much, Dr. Rhodes.

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THE INQUIRY RESUMED

5 DR. DUPRE: Ladies and gentlemen, may I welcome on behalf of my colleagues, the delegation from the Ontario Ministry of Labour. The delegation this afternoon, the presenters, are headed by Mr. Tim Armstrong, Q.C., the Deputy Minister of Labour.

Mr. Armstrong, we are in your hands for such opening comments as you and your colleagues wish to make.

10 MR. ARMSTRONG: Thank you, Mr. Chairman, and your fellow Commissioners, for the opportunity to attend today and to participate in these important proceedings.

I might relieve your anxiety by saying that I will not take a long time to make an initial presentation.

15 I would like to introduce Dr. Ann Robinson, on my immediate right, who is the Assistant Deputy Minister, Occupational Health and Safety Division of the Ministry, who will be taking the lead in highlighting the portions of the brief that we think should be of major interest to members of the Commission.

20 On my immediate left is Dr. Max Fitch, the Director of the Special Studies and Services Branch of the Ministry, and finally on my extreme right is Mr. Gyan Rajhans, who is the Chief of the Occupational Hygiene Service of the Ministry.

25 There are other persons from the ministry present, as you may have noted. The directors of the five other branches of the division, which is described in the brief, are present, as well as members of their staffs who have special knowledge in one or more aspects of controlling asbestos exposure.

30 Among the people present are those who have specialized knowledge in air sampling, dust control, medical surveillance and other related matters.





MR. ARMSTRONG: (cont'd.) I think, Mr. Chairman, that you will have noted that the brief is in effect an introductory brief, which I think should be...I hope is of some assistance in informing the Commission about the efforts made by the Ministry of Labour to control the exposure of workers to asbestos in the workplace. I think you are fully familiar with the environment in which the ministry operates in this very important area.

That is to say, employee and indeed community concern about the health hazards of asbestos, its widespread use and the resulting need for what we refer to as multi-dimensional control programs, the difficulties in assessing exposure, and its consequences, and the control practices in other jurisdictions.

As I have said, while the brief is a detailed background brief, it will not perhaps give you all of the detailed information you require and that is why we have a delegation here to speak to the questions you may have to ask us.

I want perhaps just finally to take one or two minutes to direct your attention to how we plan to build upon what we are now doing to control asbestos-related health hazards, and to discuss very briefly the plans which are mentioned in part five at the end of volume one of the documents that you have before you which constitute our brief.

First of all, officials of the division currently follow on a world-wide basis all developments in the field of controlling asbestos at work. We have relied heavily on this type of activity in the past, and I believe it has served to keep us abreast of the most up to date knowledge and control practices in the area.

Although we will continue to draw on our own resources with respect to these matters in the future, it is



MR. ARMSTRONG: (cont'd.) essential that we continue, in my view, to use information from other jurisdictions.

At the same time, of course, we will continue to make the findings of any work we do available to other jurisdictions.

Secondly, we are moving, Mr. Chairman, towards a more systematic auditing and monitoring of asbestos exposures. Known locations are to be recorded on a computer by company name, numbers of exposed workers, type of operation, air sampling results and other characteristics. We believe this should assist us in determining where our Occupational Health Branch should concentrate its evaluative and surveillance resources.

At the same time, information will be uniformly recorded for input into the system so that more effective analysis can be undertaken for research purposes.

Thirdly, and in line with the recommendations of the Hand Commission, the proposed asbestos regulation published last August will, as you know, require employers working in collaboration with their employees to take more responsibility for risk assessment where a health hazard is identified because of inhalation or ingestion of asbestos. Medical surveillance will be mandatory as part of an overall control program. We anticipate that employers will continue to rely heavily on the ministry for x-rays and pulmonary function testing. The ministry will, of course, continue to ensure that employers meet their responsibilities in these areas through its inspection and other enforcement activities.

We believe that, Mr. Chairman, Ontario is already contributing to the extensive study and research into the health impacts of asbestos, as noted on pages sixty and sixty-one of the brief. Frankly, we see a need for



MR. ARMSTRONG: (cont'd.) further work to indicate the extent to which exposure-response relationships differ with different uses of asbestos. In this connection the ministry has two broadly-based studies of Canadian Johns-Manville workers in advanced stages or preparation. One deals with the incidence of asbestosis among long-term employees who have been exposed to asbestos, and the other with mortality experience.

A study similar to the latter is just getting underway among former Bendix employees.

The unions, I may say, which represented these workers, the Energy and Chemical workers at Johns-Manville and the UAW at Bendix, are co-operating fully in these projects.

The feasibility of establishing an expanded register of all asbestos-exposed workers in Ontario is being actively pursued. Such a register would include all present and future asbestos-exposed workers, and any worker with past exposure whose identity and whose work history can be determined.

As the Commissioners will be aware, the proposed asbestos regulation, Mr. Chairman, has received considerable attention. I should perhaps just say that the ministry intends to have it in place as soon as possible following the analysis of the many detailed...in some cases complex, but generally helpful briefs which have been submitted in response to its publication last August.

Mr. Chairman, may I again thank you for the opportunity, on behalf of the ministry, to appear this afternoon. The staff look forward to the questions which no doubt will ensure, and with those brief introductory remarks I would like to invite Dr. Robinson to perhaps direct your attention to some other important elements of the brief, and to relate it to the





MR. ARMSTRONG: (cont'd.) major issues that we face in controlling exposure to asbestos at work.

DR. DUPRE: Thank you, Mr. Armstrong.

Dr. Robinson?

DR. ROBINSON: Mr. Chairman, Commissioners, I'll use the time available to me to set the ministry's brief in context of policy and technical issues relating to the Ontario government role in controlling asbestos exposure at work.

Although the contents of the brief reflect such issues, I want to define them more specifically and relate them to ministry responsibilities and programs.

The brief outlines the recognition of asbestos as an occupational health hazard, and Ontario's legislative, organizational and program responses to the problem. Thus it is mainly descriptive and contains limited content on the nature of the problems to be resolved, and on evaluation of the measures taken to deal with them.

Therefore, I suggest that the document be used as a background to discussion of issues, the purpose that we had in mind for it.

First, I would like to emphasize to the Commission the fact that the ministry has had a long-standing and intensive involvement in limiting worker exposure to asbestos. Ontario has been alert to the need for government action in this area and quick to make practical use of new knowledge. Within the limits of scientific knowledge, the records has been a positive one. This is demonstrated in the brief through the review of legislation, the attention given to asbestos by the various branch programs, and more recently, the search for improved definition of the hazard and the means of dealing with it.



5 DR. ROBINSON: (cont'd.) In summary, the ministry's task is to define objectives to be met in controlling hazards to occupational health and safety, and to promote observance of these objectives.

10 In both of these areas of responsibility we are faced with issues that are difficult to resolve. I want to give particular attention to four of these matters. These are as follows: The definition of exposure criteria, the reliability and availability of measured exposure records and the operational consequences, the appropriate balance between internal responsibility and government legislation, the making of government decisions on control of toxic substances.

15 If I may deal first with the definition of exposure criteria: The brief demonstrates a growing reliance in Ontario on the use of control limits as an element in the overall government strategy for protecting workers against exposures to asbestos which might be hazardous. Among others used, and in some instances required in legislation, have been engineering controls, guides to safe work practices, training and notification programs, and medical surveillance.

20 To date, the exposure criteria or control limits used in Ontario have been in the form of guidelines rather than legislation. The impending adoption of specific exposure limits through regulation is a major step. There is no doubt that there are difficulties in legislating such limits. These arise in the main because of scientific uncertainty about the health hazards presented by asbestos. Nevertheless, Ontario is committed to this approach.

25 In the realm of occupational health, the control of toxic substances generally is based on the assumption that for each substance there exists some safe or tolerable level



5 DR. ROBINSON: (cont'd.) of exposure below which no significant adverse health effects occur. This concept is being very seriously challenged where carcinogens are involved. Asbestos poses a special problem in that most health studies have addressed the problem of asbestosis, and have not been related to the development of cancer.

10 There is a further complication in that the several mechanisms of carcinogenesis are not fully understood, with particular deficiencies in respect of the dose-response relationships and the definition of a threshold level for carcinogenic effect, if such indeed exists.

15 With this in mind, in June of 1980 the minister approved the establishment of the task group of the Advisory Council on Occupational Health and Occupational Safety to study the subject. It is hoped that their findings and the findings of this Commission will provide some guidance to the ministry in this very sensitive area.

20 The second area of uncertainty to be considered in formulating regulations derives from different views about the relative hazards of crocidolite, amosite and chrysotile asbestos. There is extensive agreement that chrysotile presents a much less serious risk of lung cancer and mesothelioma than either amosite or, particularly, crocidolite. This is reflected in the establishment of different control limits for each, as was suggested by the British Advisory Committee on Asbestos in 1979.

25 In fact, this committee recommended banning crocidolite because it concluded that any exposure to it is unlikely to cause cancer (sic). However, importation has ceased into Great Britain, although there is no statutory ban.

30 The NIOSH-OSHA work group in the United States





DR. ROBINSON: (contd.) concluded in contrast to the British committee that all forms of asbestos cause cancer and suggested a single control limit of one-tenth of a fibre per cubic centimeter of air.

In the face of conflicting evidence from such well-qualified sources, it is difficult to determine what limits should be set. It is expected that the Advisory Council advice will address and assist us in this matter.

The two considerations noted, both from respected sources, provide different conclusions on control of asbestos. This dichotomy is not unique to the field of asbestos, and in this case there is no intent to single out certain references as being questionable.

The Commission, I am sure, is well aware of conflicting evidence in interpretation of scientific data in the published literature, as well as in the briefs submitted. The ministry then is faced with making an evaluation of the merits of all available information, and this is just one of the considerations for setting criteria for controlling asbestos.

There are other questions which arise in arriving at such criteria, and for which the ministry is looking to the Commission for comment. What are or should be the overriding cost considerations for a control limit? Should the ministry be concerned about such cost considerations? What will be the extent of social consequences to workers of the loss of jobs, to employers who may lose revenue, to consumers who may be deprived of products, compared to the health benefits derived?

What would be the effect of a complete or partial ban on asbestos? What are the hazards, if any, of introducing substitute materials? Are practicable measurement techniques available to determine compliance with an adopted standard? Is it realistic to expect reduction in the exposure



DR. ROBINSON: (cont'd.) risks for workers to the same level as those assumed by the public at large.

5 The ministry attempted to take the facts as noted into account in proposing the exposure limits contained in the regulation. That is, time-weighted average limits of one fibre per cubic centimeter for chrysotile, point two fibres per cubic centimeter for crocidolite, and nought point five fibres per cubic centimeter for amosite. A ban on the use of asbestos is not being proposed. The evidence available to date indicates  
10 that such a step may not be necessary.

A study of the briefs responding to the published proposal is now in progress, and the information derived may lead to adjustment of those control limits if this seems appropriate to us.

15 My second point, the reliability of measured exposure and operational consequences: The reliability of measurements of asbestos exposure has been one of the major concerns of the ministry. The immediate problem is that if an exposure is underestimated, a false assumption may be made that the permissible exposure is not exceeded, and control  
20 measures are not required. This places the worker to an acceptable risk from asbestos.

On the other hand, if exposure is overestimated control measures in excess of what are necessary may be ordered.

25 Part four of our brief discusses in some detail various means of identification and quantification of airborne concentrations of asbestos. For the most part, the methods described are not directly comparable and in some cases measure different parameters. Even though the same unit may be used, the data may not in fact be comparable. For example, for every one asbestos fibre that is visible under phase contrast  
30 microscopy there may be forty or fifty asbestos fibres that are not seen and can only be detected by the superior resolution



DR. ROBINSON: (cont'd.) available by the use of electron microscopy.

5 There is also evidence that area samples and personal samples will not necessarily yield the same results. Mass measurement techniques are available for measuring asbestos exposure, but comparison with traditional fibre counts may present some difficulty.

10 A further factor is that there is not complete agreement as to the effect of short fibres. That is, those that are less than five micrometers in length. At the present time the most widely-accepted measurement method is to sample the air through a membrane filter and to count the fibres, all fibres, greater than five micrometers in length, using phase contrast light microscopy. This provides not an absolute exposure level, but an index of the asbestos concentration.  
15 This method is used mainly because it is readily available and practical, and there are epidemiological studies to back up exposure control criteria.

20 The Commission has been made aware through briefs submitted to it, and through representation this week, that there is still not complete agreement as to what techniques to measure exposure should be used. You heard that some consider the ministry method adequate. Others have opted for electron microscopy, and others for electron microscopy combined with counting all fibres, even those less than five micrometers in length.

25 In addition to these approaches presented to the Commission, the ministry is exploring the use of gravimetric techniques with a view to improving the precision and accuracy of measurement, and incidentally, providing results more quickly at reduced costs.

30 While there is controversy as to which is the best method of measuring asbestos exposure, we are confident





DR. ROBINSON: (cont'd.) that the ministry is applying the one which is most widely used, in an effective manner. Our technicians have lengthy training in taking air samples and counting fibres. Their record in obtaining consistent results has been extremely good, and this, we feel, lends reliability to the exposure data that we obtain.

There are difficulties in providing more than estimates of personal exposure to estimates for long-term workers, because testing has been done by different methods and against varying standards. A direct consequence of these factors is the difficulty of determining accurate exposure-response profiles, and therefore of arriving at an exposure level. Ontario is no different in this respect than other jurisdictions, and may be better because of its extensive experience in air sampling.

My remarks indicate that we may have some opportunities to improve our measurement practices and the exposure data we obtain from them. It is my intention that we will explore these opportunities as fully as possible in the months ahead. I'm sure that the Commission understands that the results of such an exploration may not be completely conclusive, but we feel it is important to arrive at the best possible judgement as to which measurement practices we shall choose to follow in the future.

My third point, the balance of internal responsibility and government regulations: The internal responsibility system proposed by the Hand Commission is fundamental to the Occupational Health and Safety Act of 1978, and the ministry remains committed to it. We do so even though there are some who express skepticism about its effectiveness. The skepticism is based primarily on the view that employers are not sufficiently forthcoming with information on health and safety issues to permit the system to work. To the extent that this is the case, it is certain to hamper worker/employer efforts



DR. ROBINSON: (cont'd.) to improve health and safety conditions. However, we in the ministry see extensive evidence that employers will meet their responsibilities in this area and that it is in their own interests to do so.

Perhaps the most encouraging evidence of this comes from certain experiences with joint health and safety committees. The record in simply getting these committees in place has been most gratifying. We know that they have been set up in more than ninety percent of the establishments where they are required by the Act. At the same time, in those instances where there were initial difficulties in the committees playing effective roles, we have been highly successful in reversing some of the difficult situations and problems.

One of the major problems arose in one of the largest industrial establishments in this province, and that, with ministry assistance and the use of mediation techniques, has resulted in the company and union working together on the real health and safety problems that they face.

While we have confidence that workers and employers will assume their full health and safety responsibilities, we recognize the need for reinforcement of government programs. Well planned government auditing of health and safety practices is essential to keeping the internal responsibility system alert and responsive, and we will continue to develop our programs in this respect. They can be supplemented by provision to parties of government-generated information on health and safety, and through training assistance. These seem to be the areas in which we can contribute most directly to improved assumption of internal responsibility.

The fact that asbestos is one of the substances to be designated for special regulation demonstrates ministry awareness that the parties to the internal responsibility system



DR. ROBINSON: (cont'd.) may have difficulty in coping with the hazards it creates. The total government/ employer/worker responsibility system designed into the legislation is an integrated whole through which mutual support is provided in the resolution of health and safety problems.

When the asbestos regulation is in place, it is our belief that it will strengthen the entire protective system for dealing with asbestos, and correct any information deficiencies that now exist.

My fourth point, relating to decisions to regulate toxic substances: This is the last topic I wish to mention and it's the process of deciding...of how we decide that a special regulation or other measure is needed for controlling the use of toxic substances. This process is not peculiar to asbestos, but has been followed in developing the proposed regulation. It's important to recognize that development of a regulation pertaining to a toxic substance is an extended and complex process, and that these regulations are not unilateral decisions imposed by the ministry.

To elaborate on the points made, it should be noted that the ministry has a six-stage approach to developing a regulation. Workers, employers and the general public are able to have input to such development at most of the stages. Identification of a problem may come from outside of government. After such identification, background material, including any that may be provided from interested parties, is assembled. At this stage a tripartite action group of worker, employer and government representatives may be formed to examine the problem. Once a decision has been made to proceed with a regulation, a notice of intent is published in the Ontario Gazette soliciting briefs and submissions on the subject. After reviewing all the submissions, the ministry prepared a regulation to reflect as much as possible the intents brought





DR. ROBINSON: (cont'd.) forward in the briefs.

5 The proposed regulation will be published in the Ontario Gazette, with a further opportunity for outside comment before final adoption.

10 While the foregoing is somewhat short, I hope that it demonstrates that the ministry does not work in total isolation. With these remarks, Mr. Commissioner, I have tried to relate the brief that we presented to at least a few of the issues that we face, and thank you, Mr. Chairman, for the opportunity to make this presentation.

DR. DUPRE: Thank you indeed, Dr. Robinson.

15 Dr. Robinson, Mr. Armstrong, as you, yourself, stated, yours is indeed an introductory brief and this in turn is very much of an introductory hearing. Our whole intent during this week has been to pursue various lines of questioning with presenters on a very open, a very flexible basis. We are not necessarily in quest of immediate answers to any questions. Our questions can very often be taken as notice of information we would like to have. We also pose our questions in such a way, very often, that they are deliberately  
20 intended to help you to read, so to speak, what is on our minds.

25 Now in that latter vein, and before I pose an opening line of questioning, I would like you to indulge me for a moment in terms of the disciplinary bias that anyone with my kind of background would have. As a professor of public administration, I very much approach your ministry as a case study, so to speak, in bureaucratic organization. As I look at your ministry in terms of where it has been, I see, of course, a ministry which very quickly has had its responsibilities multiplied..especially in the domain of occupational health  
30 and safety.

In 1976, the number of statutes for which you



DR. DUPRE: (contd.) were responsible, as you reminded me in your brief, doubled. In 1978 you became responsible for a sweeping new statute, the Occupational Health and Safety Act of 1978.

Now as I've seen where you have been since 1978, under the statute, frankly I see an organization that of course has had to shoulder major burdens of implementation, overseeing among other things throughout the province this new internal responsibility system, making a transition, where hazardous substances are concerned, from guidelines to regulations, shouldering on a firefighting basis responsibilities associated with programs that come from other ministries. For example, the school asbestos control program. And I see you facing this role of implementation in a setting where there has been great pressure to move fast to produce results.

With this kind of background on my own mind, I frankly have not been at all surprised to learn during this week in particular and from my reading of the briefs, that there are any of a number of areas where you are perceived not to have moved fast enough, not to have produced enough results. I can understand both, on the one hand, the depth with which this dissatisfaction is expressed to us, but on the other hand, the kinds of pressures which as an organization, to me it is inevitable, you have been trying to cope.

Now again with my public administration, when I read the briefs that are before us, not only of course do I see evidence of the pressure under which you are to do it fast, do it quickly, show results, I also appreciate something else. Which is, that in terms of whatever parties are putting before us, it seems very likely that in their view there are yet even more things that you should be doing.

Now at this point, in terms of airing my own professional bias, I simply view this as the year 1981, which



5 DR. DUPRE: (cont'd.) happens to be the halfway point between when your legislation was passed, 1978, and 1984, and of course certainly one consideration that I will have in my own mind is to try to bear in mind when we formulate our own recommendations that we wish you to avoid as an organization the Orwellian version of 1984.

10 Now, with this kind of introductory remark front and center, as nakedly exposing all of my biases, could I please, with the indulgence of my colleagues, open up a line of questioning by way, perhaps, of pursuing a bit of a case study...in particular, the asbestos-control program in the schools.

15 Now we appreciate the interministerial allocation of responsibility, I think, that is involved here. We also appreciate the particular role that is played by boards of education. Now, in terms of various thoughts that have been exchanged between ourselves and various parties in this room, there are several aspects of the school program on which we warmly invite your perception, and they would, I think, include the following: The relative pressure that this program has placed on your testing facilities...the relative pressure, if any...the relative pressure that this program has placed on your capacity to monitor the workplace and in particular, as it is beginning to unravel in front of us, what we are looking at here involves the capacity of the ministry to help ensure that all due precautions will be taken to protect the health of the workers directly involved in asbestos control measures, be these removal, encapsulation and so on.

25 We are interested, of course, in connection with this in the whole matter of how the internal responsibility system is working up in this particular instance, an instance which of course in some ways involves a particularly difficult test, as I understand it, because we are here looking at





DR. DUPRE: (cont'd.) what is renovation or removal activity, which has all of the characteristics of industry that is not in fixed place.

5 Now, just having touched those three little areas, may I just invite such comments or such perceptions as you or any of the colleagues you wish to call upon, Mr. Armstrong, might wish to give us as to how this school control program, with the responsibilities that fall upon you, a program that is being implemented at a relatively rapid pace, how it looks from your side of the counter.

10 MR. ARMSTRONG: Mr. Chairman, I wonder if I might seek your indulgence, just before we turn to the school program, to comment very briefly on your introductory tour of the horizon?

15 DR. DUPRE: If you please.

MR. ARMSTRONG: I think it entirely appropriate, if I may say so without being presumptuous, for you to recognize the fact that you have heard this week about the pace of progress that the Ministry of Labour is making under a piece of new legislation which, without making a political speech, in my view represents a major step forward in public administration.

20 The legislation, for the first time in Ontario, contains a provision, as you know, for the right to refuse to perform unsafe work...a provision which is new and requires the most careful and sensitive administration.

25 It provides for mandatory health and safety committees in many establishments and undertakings in the province. You are familiar with the limitations of that, but fundamentally it's in establishments over twenty.

30 It provides for mandatory safety representatives in the construction industry, it provides new rights of accompaniment of health and safety inspectors, rights that didn't exist before. It provides for the right to the disclosure



MR. ARMSTRONG: (cont'd.) of information, including the posting of inspectors' reports.

5 It is informed by many of the themes that were present in the Ham Commission Report, which we fully acknowledge as the prime motive, force behind a piece of new legislation.

10 We are aware, as a result of appearances of this sort and appearances, as Dr. Mustard will know, before the... in the debates before a select standing committee, that there are those that are of the view that our progress is not sufficiently rapid. I simply point out that although the Act is entitled the Occupational Health and Safety Act of 1978, is was not proclaimed in force until October 1, 1979, so we have had roughly sixteen months in which to operate under this Act.

15 Having said all that, I want...I don't want to be defensive. However, I want to make it clear that we would like to be proceeding as fast as possible with the question of, in the area of designated substances, including and perhaps in a priority sense, asbestos.

20 We would like to be able to make a full report and a full monitoring report on the effectiveness of health and safety committees, and I think as the questioning proceeds I think we will be able to give you a somewhat more sanguine view of the way that procedure is operating. I simply wanted to say, Mr. Chairman, that I appreciate that you expressed without indicating, as a good chairman would, a preference for one side or the other...you appreciate the pressures that do exist and the fact that we have been operating for a rather limited period, and I would submit and I hope the exchange between us would indicate, that we have made substantial progress in a very major task, where we are faced with a very major task.

25

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MR. ARMSTRONG: (cont'd.) Now turning to the question of the school-control program, and I'm going to ask Dr. Robinson and Mr. Rajhans to elaborate on a few introductory remarks I will make about it.

We are acting as a resource ministry to the Ministry of Education in respect to a very large and ambitious program which is proceeding at, as you, I think, observed, at a rapid pace. In that capacity we provided to the Ministry of Education several documents, I think perhaps two documents, dealing primarily with the views of the staff of the Ministry of Labour on the methods by which asbestos should be removed or otherwise controlled in situations where it appears on sprayed beams in the ceiling systems of these institutions.

The other aspect of service provided by the Ministry of Labour is the analytical side where bulk samples are sent to the ministry's laboratory for analysis, and we do sit on a committee, an interministerial committee, which meets from time to time to assist the ministry in the program in which it is financing and directing.

I understand that you have some questions about the details of that program and about the, I suppose the advisability of, for example, favoring the removal of asbestos as opposed to encapsulation, and the risks that may be attendant upon the removal process as opposed to trying to seal it up. The experts can certainly speak on that and tell you what considerations went into establishing that as a preferred method of treatment.

I think I would simply say finally that of course we have, although we are a service ministry in respect to the advice we give to the Ministry of Education, we have, of course, the primary responsibility in relation to the employees of the contractors or, in the case of boards of education which are performing the function themselves, the





MR. ARMSTRONG: (cont'd.) employees of the boards.

5 If it's necessary to do so, the director of our Construction Health and Safety Branch can expand upon the way in which we become aware of the particular projects that are undertaken, and the protective measures and inspection activities which are taken in respect of those programs.

10 Maybe, Mr. Chairman, it might be appropriate for Dr. Robinson and Mr. Rajhans to tell you something about, in more detail, about the nature of the service function that we perform.

DR. DUPRE: Dr. Robinson?

15 DR. ROBINSON: Mr. Chairman, perhaps I can comment on the relative pressures that you referred to. On the testing facilities, when the schools program first started the Occupational Health Laboratory undertook the analysis of bulk samples to determine whether or not asbestos was present in them, if so, what type of asbestos was present, and an approximate percentage figure was given also. Before the acute need developed, the number of bulk samples that were analyzed at the laboratory numbered perhaps some ten or so a month. The facility was adapted and extended with the addition of a contract member of staff, to a capacity of something around a hundred and fifty samples a week. This was achieved over a comparatively short period of time with a great deal of co-operation and help from the staff, and that was the capacity that was being operated at for several months on end during the height of the problem last year.

25 The main emphasis on the testing side was on the identification of asbestos in samples that were submitted from the schools. The samples were collected by the school boards and submitted for analysis.

30 The emphasis was on the identification in



DR. ROBINSON: (cont'd.) bulk samples rather than the collection of air samples in the school situation, so that side of the work was not extended for that particular purpose.

5 In terms of the precautions for removal and encapsulation, I pass to Mr. Rajhans to deal with that aspect.

DR. DUPRE: Mr. Rajhans.

MR. RAJHANS: Dr. Robinson, Mr. Chairman.

10 The entire question on asbestos in the schools perhaps can be viewed in two different ways. In the first case there may be workers involved, i.e. mainenance workers, caretakers, etc. In that case, we are directly involved and if required we will do extensive sampling and advise on corrective measures in as much detail as currently available, in order to ensure the protection of the workers.

15 The second point or the second thing is the exposure to the students, the children in the schools. As our deputy minister said, we are basically...we work basically on the advisory capacity, and when called upon, provide our expert opinion and expert advice in that regard. As also was said, we did produce two documentations such as this, which is perhaps available to the Commision, which details the  
20 corrective measures, the personal protections, what to do after the asbestos has been removed, and a list of the sealers for encapsulation, approved list from the EPA and other documentation has been provided.

25 Also what we have done subsequent to that, is we have provided the Ontario and Canadian distributors of those sealants.

30 I am not sure if you want me to go in detail about some of the testings that we have done where workers were involved in the schools, because we have done about eight or nine schools. We can give you the figures.

We also have figures available on the removal



MR. RAJHANS: (cont'd.) jobs that were done... not necessarily in schools, but it has been well publicized... in the TTC in other places. We have the ranges, we can give you what we found by doing personal sampling.

We also have on our file the levels available indicating the correct, the exposures where corrective measures or the measures recommended by us were applied, and places where they were not applied. So we have that comparison.

Apart from that I'm not sure what specific information is being looked for.

DR. DUPRE: Well, some of the specifics that you are talking about could be communicated to us, but could I please simply straighten out one thing that confused me a bit in what you pointed out, Mr. Rajhans?

I think I heard you say that you become directly involved if, to the extent that maintenance and caretaking staff are involved. I understand that, but would not one of the...some other division of the ministry also be directly involved with respect to the protection of the employees of the contractor, who are directly involved in the removal?

MR. RAJHANS: Yes, sir. I'm sorry...

DR. DUPRE: Okay. I had that straight. That would be the construction branch, would it?

MR. RAJHANS: Yes, sir. And Dr. Robinson has more detailed information.

DR. DUPRE: Thank you.

DR. ROBINSON: Perhaps I can mention the procedure followed by the construction branch where there is a project that comes under their auspices. An inspection is carried out with a week of notification of the project. If dust is expected to be a problem, a sample is collected and submitted for laboratory analysis, and a control order is issued according to need.





DR. DUPRE: Dr. Uffen?

5 DR. UFFEN: Could I come back to the point about the substantial increase in your ability to make measurements of bulk samples? I think it was from ten a month to a hundred and fifty a week?

DR. ROBINSON: Of that order, yes.

10 DR. UFFEN: That sounds quite substantial, but I would like to sort of relate it to how many measurements do you have to make? With your present capacity, how long would it take to do a satisfactory job of the schools in the province?

I guess many of us...I tried to figure out, if you take ten samples per school, or a hundred samples? It depends on the size of the school, I suppose?

15 DR. ROBINSON: The sampling strategy was not, in fact, in the direct hands of the ministry. This was determined by the Ministry of Education and clearly they took advice, and I believe we had some input to that.

20 So the number of samples that were taken was their determination. I believe they were concentrating on areas where it was thought that it was probably asbestos, on the basis of knowledge of when the building was put up, and other factors.

25 In terms of the time for analysis, it takes, by the methods that were in use, and this is a combination of x-ray diffraction and petrographic microscopy, about two hours per sample. But part of that time the x-ray diffraction analysis was automated. That's about the analysis time.

30 DR. UFFEN: Is it going to take a month, a couple of months or a couple of years...why I'm asking this, it relates to the urgency of the school program. What I would like to know is, do you have the facilities to do it, both scientific equipment and technical manpower, or do you use other laboratories to assist you?

DR. ROBINSON: A small proportion of the total



5 DR. ROBINSON: (cont'd.) work was put out on contract, of the identification of the bulk samples. But the Occupational Health Laboratory was able to accommodate most of the demands made on it, with the maximum capacity that I have mentioned. It depends how many samples you want analyzed, clearly, and what the pressures are and...

DR. UFFEN: Do requests for your services come in bursts, or, you know, nice, regular, manageable programs?

10 DR. ROBINSON: No, it came very much in bursts.

DR. UFFEN: Did you have a priority system?

DR. ROBINSON: Most of the samples were taken in chronological order of receipt. Very few were accelerated in the priority scale.

15 DR. UFFEN: While we are on measurement...I won't go into the great detail of it...but we have been listening to different points of view about the reliability of measurement, especially air sampling. If I heard you correctly, you have not relied on air monitoring very much in public buildings like schools, but prefer the bulk samples. Have I got that right?

20 DR. ROBINSON: This was the approach that was taken, because of the difficulty of relating the airborne concentration to the condition of some material in the building.

25 DR. UFFEN: Okay. Is the difficulty of measurement one of where to make the measurements, or when to make the measurements, or the inherent limitations of the method of measurement?

30 DR. ROBINSON: In the context of the schools program I think the anxiety was that, the problem of getting a representative sample and the variations with temperature, humidity, traffic, vibration and so on. The determination was made to go for the identification of where asbestos was, and then to deal with its condition and take appropriate



DR. ROBINSON: (cont'd.) action from there.

DR. DUPRE: Oh, I think that was the third point that I raised. Did you wish to say anything about it or shall we just move on to Dr. Mustard?

It was just on the internal responsibility system as it is related to the schools program. It's maybe a more general issue. Maybe we should just forego that.

Yes, Dr. Mustard will...

DR. MUSTARD: Well, if I can follow through further on the schools program and raise before you some of the questions that have been put in our minds by some of the comments we have received from other groups we have met with, and I fully appreciate our chairman's opening remarks, and I fully appreciate the complexity of the responsibility that exists within government for handling this, so feel free to deflect my answer (sic) as being the responsibility of some other sector.

One of the concerns, I'll put in a general way, that has been put forward to us is this whole question of ensuring that the people who come to do the removal do the job safely. I guess my first question is, do you receive notification then of all asbestos removal programs? Does...do you get that from every sector or is that something which is catch-as-catch-can?

MR. ARMSTRONG: Maybe I can start that off and then ask my colleagues to augment it. There is provision in, as you perhaps know, under the regulations to the Construction Health and Safety Regulations, for, I think it's section four of the regulations, for notification in respect to construction projects, including renovations based upon certain criteria. The first and major criterion is that they be in excess of fifty thousand dollars in terms of the cost of labour and material, and there are other criteria as well. So that if people are complying with the law and regulations, if the





5 MR. ARMSTRONG: (cont'd.) contractor, or the owner if the owner is doing it as contractor, complies with the regulations, there is mandatory notification to the Construction Health and Safety Branch of the ministry that those projects are taking place. I would think that that would cover the majority of the renovation projects within the school program.

Now, I would take it that was the question.

10 Now, whether or not the law has been complied with is another matter, which I would be happy to find out about and advise the Commission. But that is the legal requirement.

15 In projects that don't meet those criteria, that for example are less than fifty thousand dollars in cost, there is no mandatory requirement and our involvement would depend upon the kind of, either a complaint, a request or an investigation that was carried out as a result of knowledge that came incidentally to the attention of the inspector.

20 DR. MUSTARD: Okay. The second point from that is, assuming you have received notification of a project in a sector of the province which may not be as well endowed with construction companies with experience in this, etc., does the ministry visit the site to ensure that the program of removal is being carried out within the procedures that you deem to be safe?

25 MR. ARMSTRONG: Dr. Mustard, in the case of what are referred to as notifiable projects, or projects requiring mandatory notification, all of those sites are visited, and as Dr. Robinson said, the target which I understand is met is to visit them on the first occasion within a week of notification, although I think probably the average is something closer to three days.

30 So all of those projects are visited, not only once, but throughout the project. Now, the frequency of inspections of the construction projects varies, but I think



MR. ARMSTRONG: (cont'd.) Dr. Robinson can correct me if I'm wrong, I think at approximately three month intervals. Is that correct?

DR. ROBINSON: Mmm-hmm.

DR. MUSTARD: Then can we as a Commission feel comfortable that what you have in place is not going to place members of the work force that work with the construction industry at risk in the school asbestos removal program?

MR. ARMSTRONG: I think you are safe in assuming that the law and its administration is adequate to protect the workers. The cant that I want to put on my answer is to satisfy myself about the nature of the notification that was in fact given with respect to the school programs. I do not have that information with me. If the law was obeyed by the contractors, and notification was given, then we have certainly got the mechanisms, the administrative mechanisms, I believe, to protect the workers involved in those projects.

DR. MUSTARD: Okay. Now, let me take a slightly different twist on this subject. I am a maintenance worker working for any sector in the province...I could be working for a school, I could be working within the provincial government, or some area...and I know that samples have been taken of material in the building in which I work, and I know that your ministry has sampled that material. Can I write to your ministry, as a member of the work force, and ask for a copy of what that information says about what that material is? Do I have right of access to the information about whether or not there is a hazardous substance in my workplace?

MR. ARMSTRONG: I'm going to defer to a colleague on that. Let me give you my personal view on that...I'll probably be contradicted. You can certainly write to us...

DR. MUSTARD: I know I can write. Will I get the information? I'm thinking as an employee working in this



DR. MUSTARD: (cont'd.) building, sir, but I just thought I'd...

5 MR. ARMSTRONG: If it came to my attention that you, or indeed any other citizen, had written to us and that you have not received the information you had requested, I would be very concerned about it. I know of no reason why any person with an interest ought to have withheld from him the results of the analysis that were done within the Ministry of Labour.

10 In saying that I am not aware that we have any statutory obligation to disclose that information, but it would be...it would not make good sense on any ground that I can think of for the ministry to withhold that information. To my knowledge, that information is not withheld, although I must confess that I don't know whether it has been requested  
15 by persons other than the persons that have sent the samples in for analysis.

Perhaps you would have some information on that?

20 DR. ROBINSON: Perhaps I can add a comment on that. The habit and the procedure adopted by the laboratory in reporting results was always to report to the school board. Some of the samples came in with what, to the Occupational Health Laboratory, was inadequate information to identify the actual source, so that if an individual wanted the result of a sample that he knew had been taken in a particular place in the school in which he worked, it might be very difficult for us  
25 to identify the sample that he particularly wanted the result for, and he might then be referred to the school board for that information. But the reporting was always to the school board submitting the sample in the first instance. If we had the specific information, it would be made available.

30 DR. MUSTARD: Can I just take this a little bit further? The joint responsibility system, indeed the legislation says, that management and labour shall have equal access to





5 DR. MUSTARD: (cont'd.) information on hazardous substances. When the ministry tests a sample, what should be the philosophy? Should it go equally to management and labour, or should it go to management when then may give it to labour? Do you want to try that one now?

10 MR. ARMSTRONG: Well, like any hypothetical question, it's difficult to answer. As I say, I think it may be a very real and serious problem, except I really don't think it has arisen. If you want a personal opinion, I would think that where a work force is represented I would think that the results of that testing should be shared simultaneously with the employer and the representatives of the work force.

15 It's rather more difficult when you've got an unrepresented work force, diffuse and without some sort of institution to look after it's interests, to do that. I think it's probably unrealistic to expect the ministry to send it to every employee in the work place. But where there is a trade union, I, off the top, can see no persuasive arguments why that material ought not to go simultaneously to employer and employee.

20 DR. MUSTARD: Or to the joint committee members?

MR. ARMSTRONG: Or the joint health and safety committee.

25 DR. MUSTARD: Let me take this to one other area where I sense a very major dilemma...

30 MR. ARMSTRONG: Can I just add to that, I think an example that comes to mind where that was in fact done, although I think the Act isn't perhaps precise on it, was in the testing program that went on in some government buildings, including the one we are sitting in, where the Ontario Public Service Employees Union, who I believe has appeared before you and hasn't been entirely complimentary about that



MR. ARMSTRONG: (cont'd.) particular activity, was brought into the program from the beginning and was privy not only to the planning of the testing, not saying they  
5 agreed to all of the procedures that were adopted, but they were privy to the planning and the timing, the selection of sites, and were provided with the results at the same time as, in effect...well, the lead ministry, the Ministry of Government Services. So there was equality of access on that occasion.

DR. MUSTARD: Now, taking a slightly different  
10 terrain, and it's the demolition industry, and which is just a swing down from what we are talking about...the two problems that have come up here, which again gets back to my question of identification and release of information...there is apparently a serious problem of being able to identify whether there is asbestos in the building, and a contractor may in  
15 effect take on a demolition contract without being aware that there is asbestos, and then find it...and then suddenly to be caught with a control program which wasn't in his cost estimates...a worker can be brought in to work on it and suddenly see stuff and not know whether it's asbestos or not. Would your ministry...is your ministry in a position, if I am  
20 a member of the work force on that site, and I suddenly feel that I am up against asbestos, can I get the ministry to do the assessment for me or do I have to do it through the management side of the contractor? What sort of position am I in when I go into a demolition site?

MR. ARMSTRONG: Again, my belief, Dr. Mustard,  
25 is that as a worker, as a demolition worker, you would have standing to indicate to the ministry that you had grounds to be apprehensive, and on receipt of that communication the ministry's Occupational Health Branch would, assuming that the apprehension was not entirely capricious and there was  
30 manifestly no basis for it, the Occupational Health Branch would



MR. ARMSTRONG: (cont'd.) respond to your request as a worker as readily as it would to the request of an employer.

DR. MUSTARD: Would I have the right to refuse work, if I was suspicious, until I got that identification?

MR. ARMSTRONG: Yes. If you could bring yourself within the wording of the statute which...I think you are aware of the wording...but it would be...well, just paraphrasing, you would have to have a reasonable cause to believe, I think, is the test of the initial refusal, reasonable cause to believe that the condition was unsafe or injurious to your health.

Then, as you know, under the Act there are a number of things involved. You have to remain at the workplace, an inspector is called in if it can't be resolved with supervision, and then in the final stages when it's elevated to in effect a showdown situation, if the inspector has disagreed, if management disagrees, then the more objective test is imposed by the legislation where you must, you may persist in your refusal but you must ensure that you have reasonable grounds for believing, which is a more objective test, and you are subject to the possibility of disciplinary action if you are wrong and that matter can be dealt with by arbitration board or by the labour board. But to answer your question directly, assuming that you could bring yourself within the four corners of that statutory scheme, you would have the right, certainly, to suspend the operation, refuse to work.

DR. MUSTARD: Can I ask a quick question? Do you monitor demolition? Is that reported to you?

MR. ARMSTRONG: Within the guidelines of section four of the Construction Health and Safety Regulation it is. Demolition is in fact an aspect of the definition of construction under the Health and Safety Act, and in that respect, I might add, it is my understanding, and others can speak to this, that the Construction Health and Safety Branch





5 MR. ARMSTRONG: (cont'd.) has prepared and issued to all of its inspectorate, specific work procedures and specific things to be looking for in respect to demolition in buildings which may contain asbestos. That document can be certainly provided to the Commission as the proceedings develop.

10 DR. UFFEN: Could I ask a question that follows from this? The main difference between demolition and renovation, as we have seen so far, and a fixed site, is the time element. You know, they are about to swing the big machine, you know, and knock the wall down, and there is an urgency of identification. I had this in the back of my mind when I talked about the priorities. Would you have in place a procedure for dealing with the urgency that comes about in renovation and demolition?

15 DR. ROBINSON: That is one example where samples from construction safety offices would be accelerated up the list and they would be taken out of sequence of receipt. There is always a priority given because of the short time during which that operation is in process.

20 DR. UFFEN: Could I move to a slightly different aspect? We are now into occupational topics, and I want to come back to the air monitoring aspect, but now in an occupational setting. There seems to us, to me anyway, a dilemma that we are trying to establish what is permissible or not permissible in the terms of the measurement of so many fibres per cubic centimeter, something like that. On the assumption that the measuring techniques are quite satisfactory, and I just finished looking fairly closely at the schedule in your appendix...I forget what the title is, but it's page thirteen...it's the Schedule of Procedures for Determining Time-Weighted Averages of Exposure. I am not raising this issue to go into the details of the measurement technique, except insofar as to ask you who decides...for example, it says, "The weekly exposure

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DR. UFFEN: (cont'd.) shall be calculated as follows", and it sets it out in a rather precise way:

5 "C<sub>1</sub> T<sub>1</sub> + C<sub>2</sub>T<sub>2</sub> ...." all the way up to C<sub>n</sub>....  
what I want to know is, what's n, one or forty? You know,  
if you make one measurement for fifteen minutes, or you make  
forty measurements of a half a day, it makes a huge difference.  
Who decides?

10 MR. RAJHANS: It is decided by a hygienist  
visiting, making the first visit to the plant. He looks at  
the operation and judges in his own mind whether the operation  
is fairly consistent or continuous in nature, or it is  
intermittent..in other words, does it have peaks and valleys,  
or it has a straight bar across. Depending upon that, he  
15 devises the sampling time that should be used and then this  
formula to be applied. It is basically the decision of  
that hygienist on the first visit to the plant.

DR. UFFEN: Does he decide where to make the  
air sampling measurement?

MR. RAJHANS: Where and how long.

20 DR. UFFEN: Are these area samples or personal  
samples?

MR. RAJHANS: Basically personal samples, but  
where we do need some background data we go for area samples  
as well. Area samples are more valid where there aren't too  
many fluctuations.

25 DR. UFFEN: Does the worker have anything to say  
about where, when, how long, these measurements are made?

MR. RAJHANS: Excuse me. What was the question?

DR. UFFEN: Does the individual worker have  
anything to say about whether he is being measured, for how  
long and whether the measurement is in the appropriate place?

30 MR. RAJHANS: The input comes through the first



MR. RAJHANS: (cont'd.) contact that is made with the representatives...that is the workers and management committees, and also the union...every attempt is made to contact, if there is a union or if there is a workers' representative...and if nothing else, the workers. So that first contact should allow some kind of input from the workers.

DR. UFFEN: Suppose he disagrees...like, he's a skilled worker and he knows his machine and he says, you are taking that measurement in the wrong place, I want you to measure it inside, not outside, or whatever...suppose there is no agreement about where and how long to make the measurement? What happens then?

MR. RAJHANS: I think the final judgement is up to the professional hygienist.

DR. UFFEN: With the hygienist?

MR. RAJHANS: That is what the tradition has been, yes.

DR. DUPRE: Well, Mr. Armstrong, Dr. Robinson, we have allocated most of the afternoon for this. That being the case may I simply use my prerogative as chairman to proclaim a ten minute coffee break and we shall return at about three-twenty-five.

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THE INQUIRY RESUMED

DR. DUPRE: I have a small question about the schools program again, Mr. Armstrong. You may direct it to whatever colleagues you wish.

We are interested, as our line of questioning both yesterday with the Toronto Board of Education and this morning with the Ontario School Business Offices, in the exact role that the autonomous school boards are cast in with respect to this program. Could I simply ask this: When a school board forwards a sample for testing to your laboratory, what is the





5 DR. DUPRE: (cont'd.) relationship between the lab and the school board? Is it a direct client relationship such that the results of the test are delivered to that school board and only to that school board, or are the results of the test more generally available, perhaps to the Ministry of Education and so on?

10 MR. ARMSTRONG: My understanding is, and I ask that this be confirmed by Dr. Robinson, my understanding is that the linkage is a direct one between the school board and the Ministry of Labour, and that the results of the analysis are sent by the ministry directly to the school board. Where or not the school board shares those with the Ministry of Labour, I'm not sure...the Ministry of Education.

15 DR. ROBINSON: Yes. The Occupational Health Laboratory reports directly to the school board, and if the school board chooses to share them, they can do so. But there has not been any direct communication of those results between the Ministry of Labour and the Ministry of Education.

20 DR. DUPRE: Let's say that the Ministry of Education wanted access to those tests, among other reasons because it wanted to have some perspective from which to approve or otherwise, different projects, would you be precluded by law from sharing the results of the tests with them?

25 MR. ARMSTRONG: I would...you indicated at the outset there were some matters we might want to take under advisement. That may be one of them.

DR. DUPRE: Okay, great.

30 MR. ARMSTRONG: I am not entirely certain...my inclination would be to say no, that we would not. However, the question of the obligation of the school board, which I understand arises, for example, under section 146 of the Education Act, which is a section requiring school boards to



5 MR. ARMSTRONG: (cont'd.) keep school buildings  
and premises in proper repair and proper sanitary condition,  
protect the property of the board and the occupants, as well as  
the obligation of school boards to meet their responsibility at  
common law for the safety of persons coming in the building, and  
I guess the responsibility of the school boards under the  
new Occupiers' Liability Act. The school boards really are,  
I think, they stand along in all of those respects that I  
mentioned and so long as sharing the information we didn't  
10 jeopardize their position at law, then that would be fine.  
But since the Ministry of Education, as I understand it, is  
making a substantial contribution to the cleanup operations,  
I think subject to that caveat that there was no detrimental  
effect of disclosure on their legal position, I would think  
that the request by the Ministry of Education would be  
15 responded to affirmatively.

DR. DUPRE: The school boards pay for the  
tests on a user fee basis, do they? Or are the tests free  
of charge to a school board?

20 MR. ARMSTRONG: Dr. Robinson tells me there is  
no charge.

DR. DUPRE: There is no charge.

Dr. Mustard?

DR. MUSTARD: I have three questions at the  
moment, one related to the issue we have been discussing and  
the other two not directly related.

25 As a parent, if one were reading the story about  
the schools and thinking a bit about it, one would recognize  
that part of this problem about removal of asbestos is indeed  
a product of regulations, guidelines and codes developed by  
governments and their agencies over the years, and we are now  
removing it and using other strategies...thinking downstream  
30 about children and people using those schools ten, fifteen years



DR. MUSTARD: (cont'd.) from now, if you were asked a question, what assurance can you give that the fire protection is going to be at least as good as, if not better than, it is at the present moment? What assurance can you give on that subject?

Secondly, what assurance can you give that any substitute materials that are being used are not in themselves going to be potential hazards downstream? I'm thinking particularly about some of the substances that have been used in buildings, etc., which we are now becoming concerned about because as they age, they release chemicals and whatnot into the atmosphere? What assurance could you give me, as a concerned parent, ten years down the road, that you are making the right decisions today in the program that we are going into?

MR. ARMSTRONG: I think, Dr. Mustard, that Mr. Rajhans has...and indeed the Occupational Health Branch has a complete listing of the substitute materials that are now being used. He perhaps can speak about the origin of that material and make some comments on its properties, both in respect of its effectiveness as a fire retardant and in respect of the hazards, if any, that may be involved in the use.

Mr. Rajhans?

MR. RAJHANS: Thank you. As far as the list of substances are concerned, and their qualities and physical properties, we have that list. As to how sure we could be as far as the various testings are concerned...in other words, tensile strength, fire protection properties, insulation, the resistance to moisture, and all that, we do not ourselves do any testing, and I am not sure that it comes under our jurisdiction either.

We have the literature available and we review





5 MR. RAJHANS: (cont'd.) them, and accordingly if we are asked we could advise on the substitute. But I do not think we have any mandate to do testing for our own...but I understand that there is CCR, Consumer Commercial Relations, who has this jurisdiction and responsibility to advise on the fire protection property of the substitute.

DR. MUSTARD: It is being done, then, through the machinery of our government?

10 MR. RAJHANS: Maybe Dr. Robinson can ...

10 MR. ARMSTRONG: Well, as Mr. Rajhans said, it is a matter which I am advised is within the jurisdiction of the Ministry of Consumer and Commercial Relations. May I again expand upon that when I have had an opportunity to determine the work they are doing in the area? We would be pleased to do that.

15 DR. MUSTARD: All right. My second part is, as we all are well aware, new substances...indeed some substances which are in recent use...have not really been screened in terms of whether they are cancer-producing or not. What assurance could you give to a concerned parent that the substances that may be introduced now have been effectively  
20 screened, not by human experimentation by voluntary epidemiological studies, but by some of the new approaches, as not being at risk to be carcinogenic either when they go in now or in the future because of deterioration of the substances and the release of substances from them?

25 MR. ARMSTRONG: It seems to be that...and I want to be as helpful as I can...but it seems to me that that is very similar to your preceding question. That is to say, what is any other ministry of the government doing in respect to the screening of substitute materials. I am afraid I  
30 am going to have...unless one of my colleagues can answer that question...I'm going to have to take that question as notice and get back to you.



DR. MUSTARD: Thank you. Now, I'll go to an easier question.

5 One of the things that as a Commissioner I am concerned about, is the question which we are not really into in phase one, but my question is linked to what we will get into later on...is the question of the records of workers that had been or are being exposed to asbestos. The concerns I have are the records in terms of workers who have been with Johns-Manville, Bendix or any other organization, but particularly the Bendix operation in which the plant has been closed down. I was left with the very uncomfortable feeling as a Commissioner that the workers that have been exposed to asbestos, particularly in the Bendix plants, that the records of their exposure may not be available ten to fifteen years from now when compensation issues may emerge. Can you tell what you have got in place to keep...if you have in place... to have a registry of workers who have been exposed, and particularly where plants have closed down, in terms of their protection for the future, and what are your proposals for the future?

20 MR. ARMSTRONG: I would ask Dr. Fitch, who is the Director of the Special Studies Branch of the division, to speak to that question.

25 DR. FITCH: The question of the Bendix records is very unsatisfactory in this sense, that we have looked at the records that they have available and considering all the people who have worked in the plant over the years, we are told that only a very small proportion of them have ever been exposed to asbestos, but we don't have any way of identifying them directly from the records because they didn't keep that kind of records. The records are available to us, and in fact we are just at the moment making transcripts of what information they do have...that is, the identification of the people who



DR. FITCH: (cont'd.) worked there...and we plan to do a mortality study just on the basis of matching the individuals against the death records of Statistics Canada.

5 However, we have made a contact with the union and they have agreed to work with us as much as possible to try to identify people who they think had a significant asbestos exposure while working there. The company doesn't have any records that give that information.

10 DR. MUSTARD: So you will be accumulating the workers' perception of dust levels and exposure? The reason why I asked that question, at least why I want to ask this question...some of the individuals we have talked with and who have spoken to us and who are qualified in the field of occupational health, have indicated to us that the estimates of asbestos exposure in the past have been relatively soft,  
15 that indeed the problems of measurement, etc., then, that one of the best indices of what people were exposed to is to get in and talk to the people who were actually working in the plants. So my question is, because of this uncertainty in the Bendix situation, are you going to try to get a workers' record of what they think they were exposed to, and the  
20 concentrations, or would that be sort of unacceptable in your record keeping?

25 DR. FITCH: No. It appears that that's the only kind of information that we will be able to get, and so we have approached the union and asked for their help in this respect.

DR. MUSTARD: What would you propose for the... sorry, did you want to...?

MR. ARMSTRONG: I was just going to say that I think your second question was to the registry.

30 DR. MUSTARD: What do you propose to do from here on in in terms of the work force in asbestos, and I think





DR. MUSTARD: (cont'd.) I would include in that the question of people who go into demolition and get exposed to asbestos, etc. ...the whole spectrum of activity?

5 DR. FITCH: Yes. With the implementation of the designated substance regulations for asbestos, we are moving forward...this is more in the field of my colleague in the Occupational Health Branch, but I think I can tell you what the plans are. It is intended to set up a computerized record of all...this will be done for people exposed to other things as well...but particularly in the asbestos field. As 10 the chest clinic does its surveys, they will add each person's name to the computer file and then go back to the earlier records which we have and match them, and add past information for that particular worker. Because, as you know, I think, we have extensive records of previous examinations of exposed workers. It is anticipated that it will probably take a full cycle of about two years before all the industries where people are exposed to asbestos can be tested, and their names added to the file. Then that will become a continuing process from 20 then on.

Eventually, when all those who are current workers have been added in, the names will be matched against the earlier records that are held at the test clinic so that we can also add to that list people who are no longer appearing as asbestos-exposed workers.

25 The mechanism is not complete, as of now, because that will only take in the people who are tested by our own chest service, which is...at present, it is the majority of exposed workers, but there are some firms, particularly the larger ones, who have their own annual x-ray and pulmonary function programs, and we hope to link in with them so that 30 we would be able to add the information from their surveys to our records.



5 DR. MUSTARD: What about those members of the work force who are not in a fixed industry? Those who work in construction and demolition who...I would feel that one has to be concerned about the risks they must run and the problems of maintaining records about them because of their transient nature? Do you have any program to look after them?

10 DR. FITCH: We don't have it worked out yet. The other group that we have been in contact with is the insulators, who again work independently but usually from their union hall. In other words, people looking for workers in that field go to the union. Through them, we hope to be able to maintain a proper file of that group of people.

15 The group that you have mentioned is, we are aware of that problem of people who are casually exposed, and we haven't yet got a mechanism in place for dealing with them, but it will have to be done through the construction branch, identifying areas where exposure to asbestos occurs.

20 Yes, Mr. Armstrong points out that the insulators, through their union, are helping us by providing us with data on their personnel and they are bringing people in to the chest clinic for their regular examinations.

25 DR. MUSTARD: If you require notification of projects, demolition or removal, which involve removal of asbestos, could you not require a list of the workers involved in that to be submitted to you?

30 MR. ARMSTRONG: Yeah, I think that would be possible. Whether or not section four of the regulations in the strict terms is broad enough to require that except on a voluntary basis would have to be looked at. There is provision in an Act called...a somewhat outdated Act in terms of its name in any event...it's called the Department of Labour Act, which enables the deputy minister to require information



5 MR. AMRSTRONG: (cont'd.) from employers necessary to administer any of the Acts coming within the authority of the, under the responsibility of the minister, so that exercising that power I think the kind of information you are talking about could be obtained under that provision.

10 DR. MUSTARD: The reason why I am expressing my concerns about this, five to ten years down the road people will still be demolishing buildings. The public interest in asbestos may have slipped by. These workers are at great risk of being forgotten if we don't, I think, address the issue of what may be happening to them downstream.

15 The third question is related to the joint committees, and we have had very mixed comments about their effectiveness in relation to the whole field of occupational health and safety, but in relation to the asbestos questions. I think there are two things that stand out as being, to me, major problems, and I would appreciate your view as you see them in terms of how well the committees work, and then I have a specific question about one sector in terms of these committees.

20 One of them is getting adequate information to the committees. In other words, one of the frustrations is, 'I cannot get hold of the information about the substance I'm involved with. Occasionally this comes up in terms of whether I'm involved with asbestos.'

25 The second question pertains to the fact that the committee has no teeth. When there is a real problem, we really can't get the issue properly addressed.

30 I wonder if you would care to comment about how well you think the committees are working from what you have learned about them, and if you would like to address the question of adequacy of the labour members on the team getting access to information they can use, and the question of response





DR. MUSTARD: (cont'd.) to concerns which they have, both from the standpoint of your ministry's staff and management?

5 MR. ARMSTRONG: Well, let me start by saying that, expressing a degree of frustration about the criticism that I read about and hear about in this forum, and read about from time to time in some of the public prints and hear about in the estimates debates. The frustration I have is that you can only address a problem as a government bureaucracy if people are prepared to bring specific complaints to your attention. The...I am greatly attracted to the concept, again emanating from the Ham Commission, of the joint health and safety committees and the mandatory nature of them in most of the workplaces in Ontario. I would invite publicly, and this is a public proceeding, for unions that are 15 dissatisfied with the way those committees are working to advise the ministry. We have the capability, and we have had one or two situations where it has been alleged...Dr. Robinson mentioned a major industrial employer in the province... yes, it was alleged that the joint committees were not working 20 satisfactorily.

We have people in the division...this particular person I am thinking of has a valuable background in mediation and preventive techniques and results by objectives, and has worked very effectively with that particular committee to remove the communication roadblocks that were indeed existing. 25

I think with the exception of that situation and one or two others where the dispute is a little different, the dispute in a couple of other areas I have in mind as to whether the employer has in place a structure that is equivalent in value and functional worth to the committee structure, not a true labour/management committee...we have had those situations. That's another...that's sort of, in a fundamental sense a 30



MR. ARMSTRONG: (cont'd.) different problem. With the exception of this one situation I am not aware, except in forums of this sort or before the estimates or in the Globe and Mail, where the ministry has been advised of the details of how committees aren't working.

Dr. Robinson said over ninety percent of establishments that require committees, according to our monitoring, and it has been careful monitoring and all of the inspectors have been asked to check on committees...over ninety percent of establishments have established them, they are building. Inspectors have standing instructions when they go out to make contact with the committees and determine if there are any problems with respect to the way in which those committees are operating. If I sound as though the nerve ends are close to the surface, perhaps they are. I think it's...if I may say so, I think it's not a fair way to address a real problem to beef in a public forum when there has been no complaints laid before the ministry.

As I say, I invite my friends in the trade union movement and employees generally, to bring those complaints to our attention and we'll address them. We can give you...it's perhaps invidious to compare various organizations...but we can give you many examples where the committee structure is working admirably. There may have been examples give to you where it's not.

DR. MUSTARD: We had both.

MR. ARMSTRONG: If that's the case, we would like to hear about them.

DR. MUSTARD: The one that we heard about, I think it's fair to say, was the Ontario Hydro was working. I think that was the impression that we were given yesterday.

Let me ask a specific question. Who is responsible for the joint committees? How do you handle it



DR. MUSTARD: (cont'd.) within government in terms of those employees that come under the Act?

We had some concerns expressed in this sector last night.

MR. ARMSTRONG: The employer in government, as I think you know, is the Management Board. The personnel wing of government is the Staff Relations Branch of the Civil Service Commission. The enforcement arm is the Ministry of Labour under the provisions of the Occupational Health and Safety Act. The Act is binding on the Crown and to the extent that health and safety committees are not either being set up or are not operating properly, and to the extent that that represents a deficiency in the way the Act is being complied with and is being administered, that would be ultimately our responsibility.

The first line responsibility would be for the employer ministry to issue the appropriate instructions, I would think, but again, and I'm aware that you have heard some representations on this score, speaking personally as deputy minister these concerns have not been brought to my attention. I think that we have a close and cordial relationship with the Ontario Public Service Employees Union, and I would have thought if it's a serious matter, I would have hoped that the president of that union and his staff members would have brought that to the attention of my office or the office of Dr. Robinson.

Speaking for myself, I can say that it has never been brought to my attention.

DR. MUSTARD: Thank you.

DR. DUPRE: Dr. Uffen?

DR. UFFEN: I would like to enter another area of jurisdictional problems that has emerged in our hearings so far.





5 DR. UFFEN: (cont'd.) One of them deals with low level exposure, public buildings again, and I haven't got it sorted out in my mind. Who would be responsible for monitoring publicly accessible buildings but which are privately owned? Like a big restaurant?

10 MR. ARMSTRONG: Well, my view would be that the responsibility to ensure compliance would fall in a primary sense on the owner to fulfill his functions under the provisions of the Act. If there was need for monitoring, our responsibility would be the same as it would be....let me put it this way, whether it was public or private, since the Act binds both the Crown and the public at large, we would have the same responsibility to respond to requests for air monitoring or other surveillance of the situation. And indeed we would, in the course of our duties as a line inspection branch, we would inspect in those premises to determine whether compliance was being achieved.

15 DR. UFFEN: What I have in mind...it was put to us that in Toronto there are a huge number of buildings, some of which are privately owned, which have youngsters in them... nursery schools and so on, and the people who were trying to sort this out and get a manageable number of investigations that it could look into, had devised a scheme and it raised the issue of authority for access to make, to take samples.

20 I wonder...I could foresee the problems, you see, of somebody knocking on the door and saying I want to come in and take a sample. And they immediately take the panels out of the roof or something, and the owner is stunned.

25 MR. ARMSTRONG: Again, I hope I can respond directly to your question, and please advise me, Dr. Uffen, if I haven't understood it. The jurisdiction we have is very broad. The workplace is defined in section 1, sub-section 30 28, as "any plant, premises or location or thing at, upon, in



MR. ARMSTRONG: (cont'd.) "or near which a worker works". Worker, in turn, under sub 29 is defined as, "A person who performs work or supplies services for monetary compensation, excluding, for example, an inmate of a correctional institution or a patient who participates in work or a rehabilitation program in a psychiatric institution, etc.", so that fundamentally the definition of workplace is as broad as it could conceivably be, with the exception that I have mentioned.

Now in terms of gaining access, the Act speaks to the question of access under section...and there may be other sections...but for example, section 33 prohibits a person "from hindering, obstructing, interfering with the exercise of a power or performance of a duty of an inspector under the Act or regulations", and sub-section 2 goes further and requires persons to, "furnish all necessary means in his power to facilitate entry, inspection and examination and testing", so I think there is both a prohibition against interference and the positive requirement that assistance be given to facilitate entry.

DR. UFFEN: Are those inspectors referred to there clearly identified? Like, are they people under the Ministry of Labour, or could you delegate that?

MR. ARMSTRONG: Well, inspector means, as a defined term, "meaning inspector appointed for the purposes of this Act and includes a director". Now, I would...that's a pretty broad power. I would think that if there was some reason to do so we could appoint a person who was...a person other than a person appointed under the Public Service Act to act as an inspector.

DR. UFFEN: You could?

MR. ARMSTRONG: We could do so.



DR. DUPRE: May I pursue a couple of areas of jurisdictional tangle with you?

5 As I understand it, I'm sitting here at the moment ingesting whatever diet the air of the McDonald Block contains. The McDonald Block, because I am sitting here working with you, I guess is considered as our workplace. Is that correct?

MR. ARMSTRONG: I believe that to be correct, yes.

10 DR. DUPRE: Now, meantime there are individuals sitting out there in the audience for whom this might not be considered the workplace? They might be considered perhaps to be environmentally exposed to whatever gifts the atmosphere of the McDonald Block bestows, is that correct, too?

15 MR. ARMSTRONG They are not...I don't think they are workers within the meaning of the Act, Occupational Health and Safety Act. Whether...I suppose they are environmentally exposed in a very loose sense. I am not sure they are environmentally exposed in the sense that the Ministry of the Environment would define that term. I think they may be exposed to...assuming there is a risk...to a public health risk, and without wanting to anticipate your line of questioning, it may well be that to the extent that there is protection for them it may be pursuant to the provisions of the Public Health Act.

20 DR. DUPRE: As I pursue this, and I'm just trying to understand what's going on around here, frankly, this is why I am asking these questions. As I pursue this, I understand, of course, that the Ministry of the Environment has whatever it is, zero point zero four fibres guideline for ambient air, and that presumably encompasses what you and I and the audience in this room are breathing?

25 MR. ARMSTRONG: My understanding of that, and I would defer to my colleagues in the Ministry of Environment,





MR. ARMSTRONG: (cont'd.) I understand they take the view that ambient air of the sort that you are talking about is air that is not enclosed in a building.

DR. DUPRE: I see.

MR. ARMSTRONG: And that therefore hazard to people other than you and I who are presumably working, to others who may or may not be, is governed by the provisions of the Public Health Act.

DR. DUPRE: I see. Now, does this mean that there really is no guideline or anything that applies to air within buildings? It falls between the Ministry of the Environment and, of course, any direct occupational exposure guidelines or standards that the Ministry of Labour, of course, has the duty to look after?

MR. ARMSTRONG: Well, I don't want to give a definitive answer to that, but I know of situations where the Ministry of Health has closed buildings because of air quality. I'm thinking of the DeLaureau situation where there was natural occurring radiation that was affecting the quality of the air within a building. In making that determination, I can't tell you whether they were relying on a ministry guideline, nor can I tell you whether the Ministry of Health in assessing the situation with respect to the potential hazards from asbestos exposure has a guideline of its own or would be applying the occupational guideline or some variation thereof.

Perhaps Dr. Fitch could add to that.

DR. FITCH: This is part of a general problem that has come to light more in the last year or two than has ever been considered before, because there are a number of possible contaminants in the air of private homes, the kind of buildings that you gentlemen have been speaking of, which do not clearly fall under any statutory control, and which we



5 DR. FITCH: (cont'd.) are referring to generally  
now as indoor air quality. Under direction from the deputy  
minister's Committee on Occupational and Environmental Health,  
a small interministerial group was set up a couple of months  
ago to look into this question which covers every type of  
contamination in indoor air, and the action that has been taken  
so far is to hire a consultant for a very short-term project  
to try to identify the types of contaminants that should be  
10 dealt with or should be considered, the sort of regulations  
that might be applied, whether they just be in terms of  
ventilation or filtration or any other system, and also to  
try to establish jurisdictional responsibility for dealing  
with it. So it is a subject that is under consideration at  
the moment, but it is a bit of a grey area.

15 MR. ARMSTRONG: Yes. At the risk of being  
repetitive, I would not want to make any final judgement on  
the matter or express any final legal view. I would not  
want to be as clear, as ready to say that there is a  
legislative hiatus. There are provisions in the Public Health  
20 Act which clearly contemplate that the buildings will be  
established at a certain standard and that if they fail to  
meet that standard and endanger public health, then the local  
Medical Officer of Health, and in the absence of his acting,  
the Deputy Minister of Health, has the power to close that  
building, and I believe, to order remedial action.

25 So I would think that was something that may  
be, as the hearing progresses, and I think it certainly is  
a relevant line of questioning that you would want to get  
greater clarity on from either us or somebody else.

30 DR. DUPRE: Let me ask you another jurisdictional-  
tangle question on which probably you would never find any  
answer because it's the national pastime, the federal-provincial



5 DR. DUPRE: (cont'd.) side of life. We have, among other things, of course, received instructive submissions from the Communications Workers. My rudimentary understanding, and believe me it's rudimentary at the moment, runs something as follows: Where, let's say, Bell or Northern Telecom is concerned, the labour/management situation is under the Canada Labour Code. Now, is it my understanding...would I be correct in understanding at that point that because labour/management relations are under the Canada Labour Code, the occupational health and safety provisions of Bill 70 would not apply in those establishments?

10 MR. ARMSTRONG: Would not apply to the employees of Bell Canada.

DR. DUPRE: Of Bell Canada?

15 MR. ARMSTRONG: Yes.

DR. DUPRE: But now at this point, in a setting where, for example, Bell undertakes, let's say, an asbestos control project and brings in a contractor who engages his own employees in the removal operation...at this juncture I guess Bill 70 would apply?

20 MR. ARMSTRONG: Let me put it this way. Operationally over the years we have assumed that to be the case and have in effect provided a service gratuitously, some would argue, to contractors who...a service that enures to the benefit of federal works and undertakings, to contractors who work on those undertakings.

25 I...in Mr. Laskin's presence I guess I would say that this is an area which we are currently researching in more depth. There has been some decisions of the Supreme Court of Canada, a decision called Montcalm Construction, and there are other earlier decisions, which I think make it possible to advance the argument that construction on a federal work and undertaking, insofar as it's an integral part of that

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5 MR. ARMSTRONG: (cont'd.) work and undertaking, regardless of the fact that it may be carried out by a provincial contractor, may fall within the jurisdiction of the parliament of Canada. But again, that very question is under investigation by solicitors within my ministry and I will certainly be prepared to share their conclusions, which I hope to have within a very short period of time, with the Commission.

10 In the meantime, there was, for example, a situation on Eglinton Avenue with an asbestos-removal program and in that situation our Construction Health and Safety Branch, rightly or wrongly, assumed responsibility for monitoring that situation and ensuring that the provisions of the provincial Act were being complied with.

15 DR. DUPRE: Now, in a situation, and I don't know whether this was the case on Eglinton or not, but in a situation where, let us say, Bell had only rented the building, at this point the situation is less fuzzy, is it? In other words, the...whatever it's called, John, the guy who rents the building...the owner...a profound legal term that I forgot... the owner of the building if he announced an asbestos-control project or had a contractor come in to do it, would quite clearly yield the situation that is under Bill 70? Regardless of who the tenant of the building...?

20 MR. ARMSTRONG: That is the third of about six questions that have been propounded for a response from our legal advisors.

25 DR. DUPRE: I see. That one is fuzzy, too? Okay.

30 MR. ARMSTRONG: It may or may not be fuzzy, but it's one that is included in the list of questions, and some may say the answer to that is clear beyond peradventure, but I will know that, to the extent that my legal advisors can tell me, very shortly.



DR. DUPRE: You will have, as they say, an opinion?

MR. ARMSTRONG: Or an opinion.

DR. DUPRE: Mr. Laskin? Any particular questions you would like to pursue?

MR. LASKIN: Can I just ask you a few questions on the proposed regulation? I guess the first question is, in terms of the guidelines that you propose, can you tell me whether there are any particular medical or scientific data or studies that you felt were determinative in coming to the proposed guidelines that you came to?

MR. ARMSTRONG: May I turn that almost immediately over to Dr. Robinson and others to speak to? There is available the...a document, a rather large document, called the Background Document. I think you may have seen it.

MR. LASKIN: Yes.

MR. ARMSTRONG: Which, among other things, reviews the material that was analyzed before numbers were set and I think in summary form it indicates the material that was looked at, and I think it's fair to say that we were influenced as much by the British study in 1979 as by any of the material, but maybe somebody else would like to expand upon that.

DR. ROBINSON: I'm not sure just how much you wish us to expand on this. The documentation is all available for public scrutiny. It gives a complete list of the references and material evaluated. To pick one or two out I think is perhaps a little invidious.

MR. LASKIN: Do I take it from the figures that ultimately came out, though, that it was the British study that was perhaps more influential than anything else? More decisive?



DR. ROBINSON: In terms of the numbers, if I may call them that, in the proposed regulations, yes. On the balance we felt that the evidence in support of those figures was the best available at that time.

MR. LASKIN: Let me go to a second point. As I read this proposed regulation, it talks about an asbestos-control program that an employer may institute, and that in turn depends upon the employer having done an assessment and having come to a conclusion that there is a likelihood that his employees' health may be impaired or adversely affected. Do I take it that the method of doing the assessment and the ultimate determination of whether or not there should be an asbestos-control program is something that the employer makes the decision on? I mean, ultimately that's his responsibility under this proposed regulation?

DR. ROBINSON: It's the employer's decision in consultation with the joint health and safety committee.

MR. LASKIN: Which is advisory only?

DR. ROBINSON: It is advisory there, yes.

MR. LASKIN: All right. What review is there of the employer's method of making the assessment or his ultimate decision? Is there any review within the ministry? Does the ministry have any power to review the employer's decision, apart from enforcing its guidelines? And suppose, for example, a plant manufacturing an asbestos product in Ontario came to the conclusion that it didn't need an asbestos-control program?

DR. ROBINSON: In that instance the documentation would be available when the inspector went into that establishment, knowing that asbestos was being used there. The inspector would, in the course of the cyclical inspection, review with the joint health and safety committee whether there were any concerns and audit the programs in place, and they





DR. ROBINSON: (cont'd.) would then have access to that information.

5 MR. ARMSTRONG: I think, though, that I might add to that, I think you are reading section 7 as permitting the employer unilaterally...assuming he has followed the assessment methods and techniques and taken into account those matters referred to under section 62 of the regulation, you are reading section 7 as permitting him to make an unreviewable determination as to whether his assessment...the assessment...has disclosed that a worker's likely to inhale or ingest, and so on. I would have thought that that was a conclusion that he is entitled to reach, but that he is not immune from an assertion by the health and safety committee, by an employee in the plant, that he has reached the wrong conclusion. And if somebody was to claim that he had reached the wrong conclusion and section 7, therefore, was not being complied with, a complaint could be made and I would have thought that it would be open for the ministry to review that matter and to make a determination as to whether that conclusion was justified by the facts, or indeed another possibility would be for somebody to say (1) there has been in effect a contravention of section 7 and one ought to consider a prosecution.

20 Now it might...problems of proof might be difficult, but I think those two avenues, subject to evidentiary problems, are open.

25 MR. LASKIN: Is there, Mr. Armstrong, a specific review power in the ministry to review an employer's decision on that, or indeed the kind of control program he sets up?

30 MR. ARMSTRONG: I think the power to review is as I have described it. It's implicit...it's not explicit in the regulations, as I recollect.



5 MR. LASKIN: Well, I must say I couldn't find anything explicit. I guess the situation you could envisage is that an employer is meeting your guidelines through whatever employment practices he has, but he hasn't got an asbestos-control program and therefore he hasn't triggered all the medical record provisions and testing provisions and so on and so forth, for employees.

10 MR. ARMSTRONG: Yes. Section 9, I don't think, touches precisely the question you are asking, but it does entitle an inspector to investigate and give a decision in writing in respect to disputes concerning assessments under section 6 and control programs required under section 7 or 8. The precise purport of that section and how it might be enforced are questions I think one might argue.

15 MR. LASKIN: There is just one other technical question I wanted to ask, and I don't purport to understand anything about it, but I notice in the brief when you were describing the various types of measurements that you could undertake, you seem to say some favorable things about this silver membrane filter method, which...and I forget the page it's on...which you then suggested would require you to, as  
20 it were, revise your guidelines in terms of the way it's done in the Warsaw Pact nations and in West Germany, in terms of mass concentrations as opposed to fibre concentrations.

25 Can you elaborate on that a little bit, and is it your opinion that that's a better way of approaching the measurement problem?

30 DR. ROBINSON: I wouldn't say it was necessarily better. It's an alternative avenue that I think merits more attention than perhaps it has received. It's the use of a collecting device which can be automatically fed through the x-ray diffraction equipment to get a mass concentration of



DR. ROBINSON: (cont'd.) asbestos collected on that filter.

5 That method of analysis is capable of greater precision than the optical counting procedure, but you need a different base and a different standard to...rather than the number of fibres per c.c. It would be necessary to establish the correlation between the alternative procedures. I see its merit in that it has sensitivity, specificity, it's capable of good precision and accuracy. Scientifically it would provide a sounder basis for comparison, but the credibility gap at the moment is the correlation between that mass value and the fibre counts and the fibre dimensions.

10 MR. LASKIN: Can you reduce that to layman's terms for me, or maybe you have already?

15 DR. ROBINSON: I'm sorry, Mr. Laskin.

This would give you less uncertainty about your method of measurement. It also provides for greater speed and less individual operating fatigue. Counting fibres is a tiresome business. It removes a degree of uncertainty.

20 MR. LASKIN: What is the drawback on the other side?

DR. ROBINSON: The drawback is interpreting the value that you get and relating the mass basis, the weight basis of asbestos, to the number of fibres and the size of the fibres if the size is correlated with the health effect.

25 MR. LASKIN: Is there any work being undertaken in that area, in that correlation area, in Europe?

30 DR. ROBINSON: There has been some work, and the jurisdictions where there is an option of the weight-basis at this time makes provision for a weight limit tied to the percentage of asbestos present in the sample. You might have a secondary measure to add to your weight limit.

There is also a question of whether you take





DR. ROBINSON: (cont'd.) a total sample or whether you take the respirable fraction of that particulate.

5 But the application of that sort of procedure would remove some of the uncertainty that is now associated with the counting procedures. I think perhaps Dr. Fitch wants to add something to that.

10 DR. FITCH: I would just like to add one statement and that is that one of the difficulties of changing over at this time would be the difficulty of relating the findings of the different methods to the epidemiological studies which are all based on fibre counts.

DR. ROBINSON: Fibre counts, yes.

DR. DUPRE: Dr. Uffen, did you wish to....?

15 DR. UFFEN: I was just going to say, you still have to do an identification from time to time anyway, wouldn't you, to make sure that what you were weighing was actually asbestos?

20 DR. ROBINSON: Yes. You have an identification, of course, inherent in your x-ray diffraction procedure. You can select according to the nature of the components of the dust sample.

DR. UFFEN: The thing that is going through my mind is that identification optically, in terms of the length-to-width ratio, physical dimension, as soon as you go to a mass measurement you lose that.

25 DR. ROBINSON: Yes. It's giving you the total weight and unless you look at it optically you don't know the range of fibre sizes that are present in that sample. This would need to be a separate determination.

30 DR. UFFEN: Would there be any help available to us from Quebec, where they have been doing both? The records that were shown to us in the Quebec Asbestos Mining Association, had both methods of measurement.



DR. ROBINSON: I'm afraid I'm not aware of the detail of the data they have available.

5 MR. RAJHANS: If I might, Quebec is not the only one who is doing the parallel sampling. The European countries, Eastern, that we have mentioned in the brief, they have been doing...as a matter of fact, the Federal Republic of Germany has had dual standards for quite a long time...one based on mass, and the other based on fibres per c.c. and if anyone, they have been more active in doing parallel 10 sampling and correlating than anybody else. Unfortunately, and this has been shown as recently as the last British Annals of Occupational Hygiene, the correlation has not been coming out to be very reliable. As Dr. Fitch says, this epidemiological survey based on fibre count gives the weight, 15 puts the weight more on fibre count, each fibre, than mass. But correlation is going on all over the world, including Quebec, which, you know, they might publish it pretty soon as well.

But we are aware of it.

20 DR. DUPRE: I think Dr. Mustard has a final question.

DR. MUSTARD: It could be a very quick question and you may not wish to answer it, but it goes to another problem area totally in the compensation field and your own medical expertise within your ministry. It's the 25 relationship between asbestosis and other illnesses such as pneumonia and right heart failure, and I guess I should put the question in two parts.

30 In considering the health hazards of any substance do you look at the broad relationship in terms of what death may be due to? In other words, you may have asbestosis and pneumonia. Do you link these two together in your own assessment and data collection? Or you may die from



DR. MUSTARD: (cont'd.) right heart failure.  
I would appreciate your views on that particular subject.

5 Secondly, does the Workmen's Compensation Board  
ever consult with you about the question of cause of death in  
relation to hazardous substances? To be quite frank, the sort  
of issue we have been confronted with and people presenting it  
is the problem of widows who may be...or the person may be  
on a fifty percent disability, dies, say from pneumonia or  
heart failure, and the widow may or may not get full compensation  
10 afterwards. My query is whether you have any views on this  
subject within your own ministry, (a) in terms of the actual  
records you keep about cause of death in relation to industrial  
exposure, and (b) if the Workmens' Compensation Board ever  
consults with you about your views?

15 DR. FITCH: In answer to the first part, Dr.  
Mustard, you'll notice that in the appendix there is a copy  
of the report on mortality among workers receiving compensation  
for asbestos. Dr. Finklestein in our branch has looked at  
a cohort of people identified as asbestotics, and determined  
their cause of death, inasmuch as one can get this from death  
20 certificates, and that information is in here so I won't go  
over that.

You were asking about exchange of information  
with the Compensation Board?

25 DR. MUSTARD: I was asking, when you are doing  
that do you formulate your policy yourselves about what  
associated causes of death...because there may not be asbestosis  
on the death certificate...that you would directly link into  
being asbestos being a factor in the cause of death? Do you  
have a policy on that within the ministry?

30 DR. FITCH: I'm not quite sure how to answer that.  
We have a couple of studies going on on the causes of death  
in asbestos workers...I presume that's the group that you are





5 DR. FITCH: (cont'd.) most interested in...and the information from the death certificate, as you know, is rather limited. It gives an immediate cause and contributing causes, so that I'm not sure that I can answer your question because the information doesn't exist in most cases.

10 DR. MUSTARD: I guess as more specifically stating it, when you are into this sort of work do you, for example, consider right heart failure in a person who has got chest disease who has been working with asbestos, as probably contributed to or even caused by the asbestosis? Do you have some kind of definition like that that your work from in your studies?

15 DR. FITCH: Yes. Well, we take note of that if that is recorded as the cause of death and if there is an underlying situation of asbestosis.

20 DR. MUSTARD: That hasn't quite answered my question. What I'm trying to get at is, for example, a person dies with right heart failure...short of breath and dies. I think many of us in medicine, if you have asbestosis and the fibrosis that goes with it, might consider that the corpulmonale was really secondary to the asbestos, and link them together in our own minds as the death is really really derived from the exposure to asbestos. I was wondering if you have a policy about these linkages, these nexus, in terms of cause of death and exposure to asbestos and asbestosis?

25 DR. FITCH: Well, we do consider them to be related, but we haven't actually done any specific studies in that area.

DR. MUSTARD: I see. Thank you.

DR. DUPRE: Well...

30 MR. ARMSTRONG: I wonder, Mr. Chairman, with your permission...?

DR. DUPRE: Please.



MR. ARMSTRONG: There was a question that Dr. Uffen asked about sampling techniques that I simply wanted to comment on briefly, if I might?

DR. DUPRE: Please.

MR. ARMSTRONG: I think, Dr. Uffen, you referred to page thirteen of volume two, which deals with the calculation of time-weighted average exposure of a worker to airborne asbestos, and you asked, as I recall, who determines the number and location of the samples that are taken.

I don't know whether, it may be of some assistance I think, to note that that particular schedule is the schedule to the, as you know, to the fourth regulation which was published in August, and it's referable to section 15 of the regulation on page eleven, which says that "the

procedure for determining air concentration of asbestos in the atmosphere of a workplace or to which a worker may be exposed, shall be the procedure set out in the Code for Measuring Airborne Asbestos Fibres dated the 15th August, 1980, and issued by the ministry."

That Code in turn appears in its entire text on page nineteen of volume two, and I would simply draw your attention to pages twenty-four and thirty of the Code...twenty-four, paragraph (g) which refers to the estimation of the proper sampling times, and perhaps more important, on page thirty, sub-section six and seven dealing respectively with the proportion of workers to be selected for sampling in relation to the size of the workplace; and sub-section seven referring to the obligation to take sufficient personal samples so as to be representative of all operations in the workplace.

Now I don't pretend to be knowledgeable about the, all of the provisions of the Code, but if that regulation



MR. ARMSTRONG: (cont'd.) comes into effect that is a Code which must be followed not by the hygienist, but by the employer under the control program who is seized with the responsibility of taking measurements.

So I believe that may expand upon it.

DR. UFFEN: It helps. I followed you through the pages and instead of one formula with a summation, you know, there is a series of formulaes in here that I don't think it would be fair to expect any worker to be able to cope with.

MR. ARMSTRONG: No. But by the same token the workers' representative who works with the employers on the health and safety committee in establishing the control program should be aware of, will have to be aware of this Code which is a published Code, which is incorporated by reference, and if it's looked at I think it's a Code that is comprehensible on its face. It may be complex, but I think it's comprehensible.

DR. DUPRE: Well may I, please, on behalf of my colleagues, thank you Mr. Rajhans, Dr. Fitch, Dr. Robinson, Mr. Armstrong, for this most useful presentation. Thank you very, very much indeed.

May I now call on our next presenter, Mr. Bob Besley, of Woodsreef Minerals Limited.

MR. BESLEY: Dr. Dupre.

DR. DUPRE: Mr. Besley, sir, you have been very patient indeed. I thank you for your patience. Will you please proceed?

MR. BESLEY: Thank you. I'm not an expert in these matters, but I would like to say something on record, with your permission. Our company has an operating mine, an asbestos operating mine in Australia, and during its operation it developed a new process for the milling of asbestos.





MR. BESLEY: (cont'd.) It's a wet process and if made into a commercial process it would eliminate the environmental hazards associated with asbestos milling.

5 I would like to...I have written you a letter and attached to the letter are two press releases that were made by the company. I think they explain our position.

10 The first one of which states that we have successfully produced commercial asbestos-cement products using the wet asbestos process, and the second press release advises you that the money for the prototype mill, which is the next step in the development of a commercial mill, that money has been raised and the mill is about to get under construction. Fifty percent of the cost of the mill and manning of the prototype mill is a grant issued by the Australian government.

15 During the testing and the running of what we call a bench plant, we hired and retained the services of Dr. Kuntze of the Ontario Research Foundation, who witnesses all these tests and subsequently wrote a report on this process.

20 My company is here to record this event and specifically offers any assistance to your committee and Commission it can offer or give. I have had Dr. Quincey confirm today that he is available at any time to give any technical and expert advice to you.

25 I am...unfortunately I'm not a technical person. If you give me a balance sheet to look out, I can do something about it. My job was to record it and offer our services and also offer the services of the Ontario Research Foundation, specifically Dr. Kuntze.

If you have any questions to ask, I'm sure I would be glad to, but my knowledge is limited in asbestos.

30 DR. DUPRE: If you please, Mr. Besley, could I just locate things geographically? Woodsreef Minerals Ltd. is a company doing business in Ontario?



MR. BESLEY: No, it's a Canadian company with its operating subsidiary in Australia. The mine, in other words, is in Australia.

5 DR. DUPRE: I see. Now, the newly-patented wet milling process to which you refer, this is a process that was developed by your company in Australia? As well?

MR. BESLEY: That's correct.

DR. DUPRE: The patent is an Australian patent?

10 MR. BESLEY: It's a U.S. patent. There are two patents and there are another number of patents being applied for. That's why the matter is still somewhat confidential and I have to restrict my activity with the Commission too, because of that reason, obviously, but Dr. Kuntze would be available to the Commission at any time.

15 DR. DUPRE: Thank you very much.

Dr. Uffen?

DR. UFFEN: As you pointed out, it would perhaps be better to talk to him about...

MR. BESLEY: I think so.

20 DR. UFFEN: ...there are questions that come to mind which he would probably be better able to answer. One that immediately leaps to my mind is, where does the water go and what do you do with it?

25 MR. BESLEY: Well, obviously it wouldn't be solving the environmental problem if it wasn't circulated...in other words it was funnelled off. It's circulated, of course. It's a chemical process.

DR. UFFEN: Another kind of question is, have you had it at what you would call a pilot-plant stage for assessing?

30 MR. BESLEY: Yes. We have obviously built what we call a bench pilot plant, and that has been in existence for about eighteen months, and it has done a number of tests.



MR. BESLEY: (cont'd.) The next step will be to build the prototype mill, which is quite a large plant and if it's successful and it proves the feasibility or viability or economics, it would be banked with further similar plants.

DR. UFFEN: Would you know whether, in the eighteen months of assessing it, whether it had been monitored in such a way that we could compare its performance with other kinds of mills?

MR. BESLEY: Yes. That has been the purpose of the tests, of course. Asbestos has standards and it doesn't matter whether you produce asbestos in a wet form or a dry form, you have to conform with those standards and, as I said earlier and it's in my letter to the chairman, which I intend leaving, we have made asbestos-cement products using the wet process fibre, which is a wet fibre. We produced asbestos-cement products, those were tested the same way, exactly, as a dry fibre would be tested.

DR. DUPRE: Dr. Mustard?

DR. MUSTARD: You may have said this and I may have obviously missed it, what fibre concentration in the atmosphere can you keep things down to using this process?

MR. BESLEY: Well, there would be no fibre in the atmosphere because it's mined wet and it's milled wet.

DR. MUSTARD: So you could go to zero fibre exposure?

MR. BESLEY: Zero fibre. It eliminates, we claim it eliminates the environmental hazards with which the industry is accused, and that's the purpose of the process. I mean that's all contained in Dr. Kuntze's report. It's completed as far as the testing is concerned with respect to our bench plant, which was done at the facilities of a large corporation. The testing was done in the manufacturing plant of a very substantial asbestos-cement manufacturer, and these





MR. BESLEY: (cont'd.) tests were all quite conclusive. They are all standard tests and completely accurate.

DR. UFFEN: You mentioned press releases...I am not aware of them. Were they in Canada?

MR. BESLEY: Yes, they were. I would rather these be confidential to the...this is not a matter of this becoming any more public than it has, the information has been disseminated. It's simply a question of giving the same information to the Commission here and should you choose to delve further into it, we have cleared that with the Ontario Research Foundation so that they can become the expert, I think, that you should be dealing with.

DR. DUPRE: Thank you very much indeed.

MR. BESLEY: You are very welcome.

DR. DUPRE: The Commission now rises until seven o'clock this evening.

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#### THE INQUIRY RESUMES

DR. DUPRE: Ladies and gentlemen, on behalf of my colleagues may I welcome warmly, please, the presenters from the United Steelworkers of America. The delegation for the presenters is headed by Mr. Paul Falkowski.

Mr. Falkowski, sir, may I hand it over to you for such presentations as you wish to make.

MR. FALKOWSKI: Thank you, Mr. Chairman.

I have with me on my left Mr. Keith Rothney who is the chairman of the Health and Safety Committee for one of our largest locals, from Sudbury. I have with me on my immediate right Mr. Gordon McKay, the asbestos worker victim. Next to Mr. McKay is Mr. Lorne Heard, from our safety department. Next to Mr. Heard is Mr. Ken Valentine, also from our safety department. Next to Mr. Valentine is



MR. FALKOWSKI: (cont'd.) Gerry Barr. He is from the district office that is responsible for the province of Ontario's activities.

5 DR. DUPRE: Thank you.

May I ask the transcriber, are you okay on all the spellings? Fine. Thank you very much.

Thank you, Mr. Falkowski. Please proceed.

10 MR. FALKOWSKI: Mr. Chairman, I should tell you that we have co-operated with the Ontario Federation of Labour on the lengthy brief that was presented by the Ontario Federation of Labour, and it represents our views as well.

As you know, we have submitted a separate submission on behalf of our union, and in addition we have a brief summary that we would like to present to you tonight.

15 Now our union, Mr. Chairman, the United Steelworkers of America, represents over one hundred thousand members in the province of Ontario, who are employed in steel plants and mines and mills and manufacturing plants and in offices, and in other places of employment. Our members work in some of the most hazardous workplaces in Ontario, and in many instances this is reflected in the recorded fatalities, 20 in the injuries and in the work-related illnesses.

It is our view that there is no need for the statistics of fatalities, injuries or work-related diseases. We must make it clear, however, that for decades we have demanded protection for our members, in particular as it relates to 25 the exposure of workroom contaminants, including airborne asbestos fibre, from the employers at the bargaining table. We have stressed that it is their responsibility to protect employees in matters of health and safety, but since action of the employers have clearly demonstrated their lack of responsibility, and a great number of our members were exposed 30 to unacceptable levels of contaminants, including asbestos



MR. FALKOWSKI: (cont'd.) fibre, we demanded protection for our members from the enforcement agencies of the Ontario government.

5 In 1974 when the Ontario Tory government was unable to find any more excuses when replying to our union and to the New Democratic Members of Parliament such as Stephen Lewis, Elie Martel and others, a Royal Commission was appointed to study the health and safety in Ontario under Professor James Ham.

10 That Commission had its first hearing on the 13th of January, 1975, and during the course of the submissions we pointed out the unacceptable environment where our members worked, including the asbestos operations in the Timmins area that you earlier heard about this week.

15 As a direct result from that Royal Commission, the Occupational Health and Safety Act was established.

In 1980, another Royal Commission to study the safety in Ontario mines was established under Kevin Burkett as the chairman. This Commission has not reported as of this date.

20 But meanwhile, another Royal Commission has been appointed, namely this Royal Commission, to study matters for health and safety arising from the use of asbestos in Ontario.

25 While all these Commissions, Mr. Chairman, are studying, the workers of Ontario, including our members, are left at the mercy of the employers, who have demonstrated a lack of responsibility, and the government agency, namely the Ontario Ministry of Labour, has often demonstrated its ability to protect management rather than workers...the workers who have complained of their unhealthy working conditions.

30 In many instances the evidence is clear that





5 MR. FALKOWSKI: (cont'd.) the working environment is exceeding the so-called guidelines, including the one for asbestos exposure. Ministry of Labour representatives, however, issue directions, recommendations, as well as orders, to have the conditions corrected, and then nothing or very little is noted in corrective measures.

10 It is our view that representatives of the Ontario Ministry of Labour are unwilling to enforce, or they are instructed not to enforce, the existing legislation for the protection of the worker, or they are incompetent.

15 While we take this opportunity, Mr. Chairman, to discuss with you our concerns relating to asbestos exposure in Ontario, we are not saying however that we were pleased when we learned of your appointment, of the appointment of this Commission. We hope, however, that your report and recommendations are not for the sole purpose of being added to other Royal Commission reports on file to collect dust and occupy file space only.

20 At this very moment, Ontario workers right here in Toronto are exposed to asbestos fibre in excess of this so-called guideline, and if this Royal Commission has the protection of the workers in mind, then we are asking you, Mr. Chairman, to call on the government of Ontario tomorrow morning with a request to implement the intent of recommendation number fourteen that was contained in the submission of the Ontario Federation of Labour.

25 As we heard earlier, our union has often been told by the employers that they are responsible for the health and safety of workers, but we would like you to examine a couple of examples of how responsible they really were.

30 A maintenance mechanic who worked for the International Nickel Company for almost half of his adult life and during his employment at INCO, Aime Bertrand...perhaps





MR. FALKOWSKI: (cont'd.) the name is familiar to you...was exposed to various concentrations of asbestos fibres and other airborne contaminants. In 1972, Aime Bertrand experienced severe throat problems. It was cancer. His larynx was removed in 1973. Aime was demoralized. Heroically he learned to speak again by fashioning sounds out of air which entered the hole at the base of his neck.

In 1973, Aime filed for compensation benefits. Representatives of INCO Limited argued that his condition was not related to his work, and the Workmen's Compensation Board rejected the claim.

The United Steelworkers of America supplied the Workmen's Compensation Board, as well as the Ministry of Labour, with references of scientific papers on the subject. The Honourable Bette Stephenson, who was then the Minister of Labour, was not able to produce one single scientific document to refute the opinions submitted by the steelworkers, but she did say more evidence was needed.

Stephen Lewis, Eli Martel, Floyd Laughren, these are all Members of the Provincial Parliament of the New Democratic Party, were outraged and the Aime Bertrand case was raised again and again in the Legislature of Ontario, and finally in May of 1978, Aime Bertrand was finally advised that he would be compensated and the Workmen's Compensation Board of Ontario identified the findings for allowance of this case as a major scientific breakthrough. But Aime had to suffer for six years with very limited income.

This is only one incident, but let me explain to you another case which is just as interesting. On June 22, 1977, our Health and Safety representative was invited to inspect a plant called Royal Industries at 1000 Martingrove Road in Rexdale. A written report was submitted by our union, with recommendations for corrective measures to be taken.



5 MR. FALKOWSKI: (cont'd.) Since in October, 1977, no corrective measures were noted, the Ministry of Labour was requested to conduct an air quality assessment. In early 1978, the union was advised by the Ministry of Labour that the sampling results were confidential and the workers, as well as the union, would have no opportunity to examine the report.

10 Floyd Laughren, a New Democratic Member of Parliament, requested the report in the Ontario Legislature, and we noted that asbestos fibre concentrations were as high as fifty-five fibres per cubic centimeter, and the lowest recorded analysis was twelve fibres per cubic centimeter.

We requested enforcement of the so-called guideline, but with no success.

15 In July of 1978, we agreed to a respirator protection program for all workers for an interim period, since Royal Industries told us they were building a brand new plant which would be complete dust-free, and we really appreciated that. This new dust-free plant went into operation in July of 1979, but by September of that year workers complained that the dust concentrations in that dust-free plant were worse than the plant at 1000 Martindale Road (sic), but very limited corrective measures were noted.

20 In October of 1979, after the Occupational Health and Safety Act was proclaimed, the workers told management they would refuse to perform work under the provisions of the Act. In November, 1979, a work stoppage did occur. Some corrective measures were noted after that. In mid-December, 1979, another work stoppage was recorded, and the company promised to have all concerns corrected during the two-week Christmas shutdown. But nothing was done except some areas were painted.

25  
30 Another work stoppage was recorded in January of 1980, and in February of 1980. Minor corrections were



MR. FALKOWSKI: (cont'd.) noted after these particular work stoppages.

5 By this time, the company had effectively destroyed any credibility of the health...that the safety and health committee ever had, and the airborne asbestos fibre concentrations were still very high.

10 On March 11, 1980, the workers individually refused to perform work under these unhealthy conditions and the plant was shut down. The company refused to follow the provisions of the Health and Safety Act, and they called the Mississauga Police Department to remove the workers from the plant. The servicing staff representative of our union then called the Ministry of Labour inspector, who arrived 15 five hours after that incident. He advised the workers that this matter should be settled between the workers and the company since the provisions of the Act were not followed, and he left.

But it should be noted that the company refused to follow the provisions of the Act.

20 At 7:00 p.m. that same night, on March 11th, the inspector, the same inspector, Mr. Peter Dyson, was called again, and he said to our staff representative, Mr. Pat Grasso, and to about fifty workers standing around, "What are you complaining about? If you work with fish, you smell like fish. If you work with asbestos, you smell like asbestos".

25 After he made this famous statement, he left, and the dispute was still not resolved.

30 The workers returned to their work locations the next day for economic reasons, but the airborne asbestos fibre concentrations were no better than before the work stoppage. Over one hundred and thirty workers were penalized by losing wages ranging anywhere from nine dollars and seven cents to a hundred and fifty-four dollars and twenty-seven cents,





MR. FALKOWSKI: (cont'd.) totalling eleven thousand, seven hundred and thirteen dollars.

On August 29, 1980, the Ministry of Labour conducted an air quality assessment in that plant. The company didn't like that report. They responded to the Ministry of Labour on September 18, 1980, and they said in part, in that letter: "We find some of the results, to say at least, unbelievable".

Another paragraph: "The point which is most upsetting is that we must post these results in the plant and send copies to the area union representative".

Another paragraph: "And then these incredible results certainly cause problems. Furthermore, the average worker in our plant would not recognize that such high concentration of asbestos dust would not be possible, and he or she is very likely to overreact. There are no comments describing the incredible situation".

Now, as you know, there is, under the provisions of the Act, there are meetings required of the safety and health committee. The next safety and health committee meeting took place on October 14, 1980, and I was present at that meeting. The complaints of the safety committee to management were again:

Dust levels as identified by the Ministry of Labour air quality report.

Asbestos dust levels on the paint line.

Intermittent problems of dust in puks.

Asbestos dust at the rear of the drills.

The complaints continue, the levels of airborne asbestos dust also continue, but only limited corrective measures are noted. This asbestos exposure is taking place with the permission of the Ontario Ministry of Labour, and the question has to be posed again: Are they not willing to



5 MR. FALKOWSKI: (cont'd.) enforce the Act? Are they ordered by the Minister of Labour not to enforce the Act? Or are the incompetent and therefore they don't know how to enforce the Act?

The Minister of Labour, however, is protecting his inspector, Mr. Peter Dyson, for his famous remark: "If you work with fish, you smell like fish. If you work with asbestos, you smell like asbestos".

10 In a letter dated April 10, 1980, the Honourable Dr. Elgie said: "His director"...that means Dyson's director, "James McNair, has advised that following inquiries he is satisfied that Mr. Dyson's denial of having made that statement is supportable".

15 But we have fifty witnesses that he said this. We wish to believe that a lesson should have been learned from the experience in Johns-Manville, from the experience at Bendix, but we have to conclude that the management and the Tory government don't give a damn for the health and safety of the workers in Ontario.

20 We have with us, Mr. Chairman, Mr. Gordon McKay, who is a victim of asbestos exposure, who suffers now financially because of the bureaucratic system and the inhumane attitude of the Workmen's Compensation Board of Ontario.

25 Mr. McKay was employed by Lundy Fence and Wire Company in Dunnville for about twenty-five years, and during that period he worked as furnaceman and as a loom operator. Mr. McKay was exposed to various concentrations of airborne asbestos fibre at his work station. But during his lunch periods his exposure to asbestos was even higher, since asbestos wipers were prepared while he was eating lunch and  
30 there were piles of asbestos rope laying on the lunchroom table.



MR. FALKOWSKI: (cont'd.) But the exposure did not end here. He carried asbestos wipers in his lunch pail, and therefore Mrs. McKay was also exposed to it.

On his work station Mr. McKay had asbestos wipers in his pockets, in his hands, quite often in his mouth since he required both of his hands to perform the work that he was assigned to do.

The Workmen's Compensation Board rejected the claim of Mr. McKay and the decision read in part as follows:

"The complete record was reviewed by the Board's chest disease consultant, and he expressed the opinion that the evidence showed clearly that the duration and intensity of exposure failed by a wide margin to meet the minimal requisite by the Board's guideline. The Board concluded that the relationship between Mr. McKay's laryngeal cancer and his employment had not been established."

The fact, however, is that no measurements are or were available to indicate the air quality in Mr. McKay's working areas, but the witness at the hearing during his appeal testified that the asbestos dust was clearly visible during the most of the working hours. The Board's criteria for laryngeal cancer cases established with the Aime Bertrand case was hailed by the Board as a major scientific breakthrough, and is recorded in the criteria and it states in section three point two on asbestos exposure, people are entitled to, if they have a cumulative minimum of ten years proven exposure.

The question is, why was this case rejected? Mr. McKay did have the exposure time; there are no measurements available to indicate intensity; testimony and facts clearly establish exposure. On what basis is this case rejected when these 'gods' of the Workmen's Compensation Board decide that



MR. FALKOWSKI: (cont'd.) there is no relationship between Mr. McKay's laryngeal cancer and his employment in Lundy Steel?

5 Mr. Chairman, was is the safe level of exposure below which there are no health effects? Our search in the scientific literature did not reveal any information of a safe level of asbestos exposure, and we reject categorically the concept of acceptable risks.

10 In the submission for Ontario Labour by the Ontario Federation of Labour, as well as in the Steelworkers submission, we point out in some detail that a model incorporating the cost-benefit analysis and acceptable risk is not endorsed by workers in Ontario or anyplace else.

15 Mr. Chairman, our union, in a co-ordinated way with the Ontario Federation of Labour, will be participating in the second phase of the hearings conducted by this Royal Commission. As we urged you earlier, immediate action is required to protect the workers in asbestos exposure areas in Ontario now, and if we are to take this Royal Commission seriously a communication to that effect

20 to the Premier of Ontario must be recorded shortly, if not immediately.

25 Royal Commissions such as the one conducted the hearings in Elliott Lake in regards to the expansion of uranium mines was nothing more than a joke, a waste of time and a substantial expense to our union and to the taxpayers of this province.

30 As you probably are aware, Mr. Chairman, while that Royal Commission conducted the hearings, the expansion went on at the same time and the mine operators paid very little or no attention at all to that Royal Commission.

We hope that this Royal Commission will be responsible for results that produce preventive attitudes and





MR. FALKOWSKI: (cont'd.) procedures in a departure from the present curative concept.

5 Mr. Chairman, perhaps you do have some specific questions to Mr. McKay. Mr. McKay made arrangements to be before you tomorrow morning, but since his ability to speak is rather limited and this is the reason why we brought him here tonight so that we can assist him.

10 Now, any question that the members of the Commission have, we will be pleased to respond to.

DR. DUPRE: Thank you very much, Mr. Falkowski. Would it be best if we addressed the questions that we would have for Mr. McKay to Mr. McKay at this time, thereby enabling him to retire from the presenters' table?

15 MR. FALKOWSKI: Yes. I would appreciate it if that could be done, yes.

DR. DUPRE: I would like to just open up the following line of questioning, which is: The appeal routes that you feel are available to you at this time, how far have you appealed within the Board and have you considered the Ombudsman?

20 MR. FALKOWSKI: This case is now pending an Appeal Board hearing. It has gone through the Adjudicators level.

DR. DUPRE: What kinds of time delays have been experienced here in the past?

25 MR. FALKOWSKI: I can't give you exact dates, but approximately since the last hearing.

DR. DUPRE: Is the next level of appeal to the full board if the appeal is unsuccessful here?

MR. FALKOWSKI: The next appeal is before the full board, yes, Mr. Chairman.

30 DR. DUPRE: Then beyond that, of course, it can only go to the Cabinet?

MR. FALKOWSKI: Beyond that it goes into the political arena.



DR. DUPRE: Has the...I understand that the office of the Ombudsman has a rather large backlog of WCB appeals. Does this square with...?

MR. FALKOWSKI: Yes, that's our information as well.

DR. DUPRE: What happens? Nothing?

MR. FALKOWSKI: Well, our experience with cases that have went to the Ombudsman is not very good. The cases such as the ones where respiratory problems are involved or the Board has no criteria at the moment, the chances are nil. You see, if the Aime Bertrand case would have went to the Ombudsman at that time, the chances would have been nil. But we went into the political arena and the political arena was then responsible for the pressure to establish that criteria.

DR. DUPRE: Dr. Mustard, do you wish to ask questions on the details of this case, the health details?

DR. MUSTARD: I'm curious about the exposure question. I take it there is no question that asbestos was used in the plant?

MR. FALKOWSKI: There is no question, Dr. Mustard.

DR. MUSTARD: There is no question that Mr. McKay was exposed to asbestos?

MR. FALKOWSKI: There is no question whatsoever.

DR. DUPRE: The Board does not...I mean this was not questioned even by the Board?

MR. FALKOWSKI: It was not even questioned by the Board.

DR. DUPRE: Okay.

DR. MUSTARD: Then on what basis is the Board rejecting the claim?

MR. FALKOWSKI: That there is no relationship between his work exposure and his laryngeal cancer.

DR. DUPRE: It's that the disease is not listed on the schedule, is that it?



MR. FALKOWSKI: But it is listed.

DR. UFFEN: Is it larynx?

MR. LASKIN: What was the length of exposure time?

5 MR. FALKOWSKI: He worked for Lundy Fence for approximately twenty-five years, and the exposure time in the heavy asbestos area would be a little bit more than ten years, maybe eleven years. And the criteria states ten years.

DR. MUSTARD: The criteria states ten years?

10 MR. FALKOWSKI: Right.

DR. MUSTARD: But the scientific evidence that you have presented on other cases, there...

MR. FALKOWSKI: There is no time limit.

DR. MUSTARD: ...said there is a linear relationship, generally speaking, between dose and response?

15 MR. FALKOWSKI: Right.

DR. MUSTARD: What did the Board say to that?

MR. FALKOWSKI: We placed all that evidence before the Board, and as I said, these gods made that decision.

MR. LASKIN: Did the Board question the fact that there had been ten years exposure? Did the Board accept that there had been ten years exposure?

20 MR. FALKOWSKI: Well, it was placed into evidence and the evidence....

MR. LASKIN: Did the Board make a finding one way or the other on that point?

25 MR. FALKOWSKI: Well, I would like to know, the basis for the decision. But as you know, the Workmen's Compensation decisions have that famous last paragraph, "In the opinion, and the evidence on record was examined and in the opinion of the consultant there is no evidence...", or whatever the next phrase is. Now, we have for a number of  
30 years requested that we get the reasons why the decision is made.





ME. FALKOWSKI: (cont'd.) Now this is leaving us in the dark. If we have the basis for the decision, perhaps we would understand it...not that we would agree with it..but perhaps we would understand it. This way we are placed in the position that we have no information to even study the thinking of that consultant.

MR. LASKIN: As I understand it, the Board decisions that you get don't tell you specifically whether you have met one or more of their criteria or their guidelines? You just get a general statement?

MR. FALKOWSKI: That's right.

DR. MUSTARD: Can you explain one thing to me? The asbestos wipes that got into Mr. McKay's mouth, if I understood what you said, what are these asbestos wipes?

MR. FALKOWSKI: Well, I'm not an expert in that wire area, but the way I understand it...and please correct me, Gordie, if I'm wrong...

DR. UFFEN: I think I know.

MR. FALKOWSKI: Perhaps we can ask Mr. McKay to reply.

MR. MCKAY: Well, it was like a five-sixteenths rope that we wrapped around the wire. Then this was placed onto the galvanized wire, and it wiped the galvanize off.

DR. UFFEN: Did you have to do lead wiping to seal off a cable? I'm thinking of the kind of cable that has a conductor down the middle and then asbestos insulation on part of it, and then some kind of an armour, and they are sealed over by a workman with asbestos gloves? And he wipes the lead? Am I on the right track?

MR. MCKAY: No.

DR. UFFEN: No.

MR. MCKAY: No, this is galvanized wire.

DR. UFFEN: Okay.



DR. MUSTARD: You have to hold these in your hand?

5 MR. McKAY: You have to wipe it off, then you place the wiper on while they was moving...the wire was travelling.

DR. UFFEN: Their purpose was to protect your hands from cuts or heat or just general protection?

10 MR. McKAY: No, the purpose was for the wire. To clean the wire.

DR. UFFEN: To clean the wire?

MR. McKAY: And...

DR. UFFEN: Okay. I see.

DR. MUSTARD: These would get into your mouth sometimes? You would hold them in your mouth, is that right?

15 MR. McKAY: Well, you had a pocket full and then if you were making a changeover for quite a few wires, why, the odd time you would hold some.

DR. MUSTARD: What kind of exposure rating do they give for that?

MR. McKAY: There was no idea of it at all.

20 MR. MUSTARD: That's a pretty direct contact.

DR. UFFEN: Were these specified, too, that you had to use these? There was no substitute? No other kind of glove that would do?

MR. McKAY: No, there wasn't. No.

25 DR. UFFEN: It was part of your requirement to do the job?

MR. McKAY: That was part of it, yes.

DR. DUPRE: Any questions on...?

DR. MUSTARD: No.

30 DR. UFFEN: Do you know whether any measurements were made on the wipes and submitted in evidence?



MR. FALKOWSKI: We searched for any air quality reports that may have been conducted at some time by the Ministry of Labour. We have been told there have been none.

The company has not conducted any tests whatsoever, of course, and we were not in a position to do it.

As far as we know there are no records of measurements available.

DR. UFFEN: Are they still using these wipes?

MR. FALKOWSKI: Ummm, well...

MR. MCKAY: No, it has been changed.

DR. UFFEN: How long ago did they stop using them?

MR. MCKAY: You mean from now?

DR. UFFEN: Yes. Approximately. Is it a couple of years, or..?

MR. MCKAY: Well, from now we're going back...I've been off work three years, so go back a couple of years before that. That would make me realize the asbestos was bad. They put in a different set up. Then the asbestos came in in a large rope about an inch and a quarter. Well, that was sent up to the machine shop to be cut in about two-inch long lengths for us. Well, the machinists refused to do it, so we had to go and do it ourselves. We had to cut it on the saw. We realized then what we were handling. But until that time we had nothing on them. Then we still never did after that.

There were three of us working at that time of that job, on different shifts. There was another guy, he lost a lung, then I lost my voice box. So two out of three ain't too bad.

DR. MUSTARD: What was done for the chap who lost his lung?

MR. MCKAY: Well, we had a strike at Lundys a few years ago. He left there and went and worked for the school board and he had trouble just right after he left Lundys.



DR. MUSTARD: Did he get compensation?

MR. MCKAY: No. As yet he hasn't applied either, but I told him he should.

5 DR. DUPRE: I just want to ask my colleagues, Mr. Laskin, if they have any more questions to ask of Mr. McKay in case he wishes to feel free to retire or do anything he wishes. You may, naturally, stay, Mr. McKay, but I wanted to respond to Mr. Falkowski's invitation to give you maximum freedom to do what you wish tonight.

10 Any more questions of Mr. McKay?

MR. MCKAY: I would just like to give you a little example. There was a guy in my place the other day. He was a farmer. He said fifteen years ago it was government regulations to line the milkhouses. Well, he said, you've got that asbestos, then it would take you hours to spit up the particles from your throat. So I thought that was a pretty good example. But then it don't take very long to do that either.

15 DR. DUPRE: Thank you, sir.

MR. FALKOWSKI, could we talk a little bit around some of the matters you raised in relation to Royal Industries, because this, of course, fits in with the whole general problem area, namely, the effectiveness, if any, of the labour/management occupational health and safety committees. It seems to me that the Royal Industries case, as you have sketched it, is arresting to say the least.

20 Now, could I just share this with you for what it's worth? I, like other people in this room, listen to all of those who make presentations, with care. This afternoon we had the Ontario Ministry of Labour for a couple of hours and the transcript will show this, it was quite out in the open: When we raised the whole question of the efficacy of the workplace committee, the whole general approach of self-regulation, etc.,

25

30





5 DR. DUPRE: (cont'd.) the deputy minister of the  
department unbuttoned himself to the point where he put the  
following to us: He said...and I'm roughly trying to reconstruct  
what he said...he said, "There's one thing that I find hard to  
understand". He said, "What I find hard to understand is why it  
is that I hear about all kinds of complaints concerning these  
committees through the estimates process when it comes up, or  
in the legislature, or", he said, "in front of Commissions such  
as this. But I have not had these kinds of things brought to me  
10 directly in and through the ministry".

Is that a fair reconstruction of what he said,  
Fraser?

MR. MUSTARD: Mmm-hmm.

15 DR. DUPRE: Because I think it was in response  
indeed to a line of questioning that Dr. Mustard had been  
asking. So I just want to put that to you.

MR. FALKOWSKI: Was that Deputy Minister of Labour  
this afternoon Tim Armstrong?

DR. DUPRE: Mmm-hmm.

20 MR. FALKOWSKI: Now, I don't want to be unkind  
to Mr. Armstrong, but in the kindest way that I can respond to  
that, Mr. Armstrong must have a lapse of memory. Now, this very  
case of Royal Industries, Mr. Tim Armstrong is sick and tired  
of hearing about it. Yes, it is correct, he has heard it also  
on the floor of the legislature, the Minister...the previous  
minister and the present minister...but let me tell you, I  
25 haven't got the entire file with me here, but I can make that  
available to the Royal Commission...how many letters have been  
written to the minister, how many meetings have taken place...  
there was at one point...and mind you, the Royal Industries  
situation is not the only one in Ontario where it isn't working.  
30 There was at one point where Mr. Armstrong has written to me,  
'why don't we stop that paper war', and it was last year sometime



MR. FALKOWSKI: (cont'd.) in...maybe I'm wrong in the month...maybe in April or maybe in May, where he said, 'let's have meetings', it was during another meeting, 'in order to resolve these unresolved concerns of yours'.

Now, we had meetings. The first meeting that took place last year to resolve the cases, including Royal Industries was on the agenda, was on July 11th. Now, when Tim Armstrong was present at that meeting, and on that same agenda they placed about twenty different concerns of the concerns that the Steelworkers Union raised with the Ministry, and not on the floor of the legislature...in correspondence with the Ministry, including Mr. Tim Armstrong.

Now, Mr. Armstrong, I recognize that he is a very involved individual in that ministry and he couldn't spend all that afternoon at that meeting on July the 11th. The minute Mr. Armstrong left, the other people such as Mr. McNair and Dr. Max Fitch...let me give you another example. The minute Mr. Armstrong left the room, Dr. Max Fitch went to sleep on the table when the meeting was on. Now that meeting, of course, didn't resolve anything.

The next meeting was scheduled sometime in August. Royal Industries was again on the agenda. Then a new fellow was appointed to take care of these problems that the Steelworkers were raising with the Ministry. We appear to have the most concerns with the Ministry, and that fellow's name is Cliff Baskin. Cliff Baskin was supposed to be the person that goes between the union and the Ministry in order to resolve these things. Now, that was sometime in August, and I certainly appreciated it very much that we get something done now.

Now, Mr. Baskin has very helpful in the case of Algoma Steel where we have that tremendous problem where there was almost a wildcat strike of the entire operation because the safety committee didn't work, the arrogant attitude



MR. FALKOWSKI: (cont'd.) of the company, and he has been very helpful to put that train back on the rails, and it's starting to work now.

But in cases like Royal Industries, the last meeting we had...and Mr. Armstrong was present at that one...again Royal Industries was on the agenda. Mr. Armstrong recommended to his people, and perhaps I shouldn't say this, perhaps it is confidential to Mr. Armstrong, but he recommended prosecution against that company.

Now it's February of the next year. Do you know that there hasn't been no prosecution. And we are not after prosecution, we are not there to clog the courtroom full of cases. But it is our view that if a situation is not safe, it shouldn't work. That is our view, and we are not after the legal system and plugging the courtroom, but we are after compliance and there is more ways than one to achieve compliance. If the particular equipment doesn't work, and if it is not permitted to operate, until such time that it is safe, I think that management would get the message rather quickly.

DR. MUSTARD: Can I ask you a question? Royal Industries, I presume, is a brake lining plant?

MR. FALKOWSKI: It's a brake lining outfit. The head office is based in California.

DR. MUSTARD: You have another brake lining business as well?

MR. FALKOWSKI: Raybestos in Peterborough.

DR. MUSTARD: Can you tell us about its performance in terms of joint committees, etc.?

MR. FALKOWSKI: The joint committees in that plant work somewhat better than in Royal Industries.

DR. MUSTARD: In other words, they have been...well





DR. MUSTARD: (contd.) put it this way...do they more successfully control asbestos levels, etc?

5 MR. FALKOWSKI: There are also problems. Let me very clear that I am not saying that this plant is without problems. But the communication, the openness between management and labour is somewhat better, if not much better, than in Royal Industries.

10 DR. MUSTARD: What about the sampling of the air, etc., to ensure that the workers are not exposed to excessive... I suppose that's the wrong term to use...asbestos? Is that being done in that plant? Are the levels lower, etc., than in the other plant?

15 MR. FALKOWSKI: The levels are lower than at Royal Industries, but the levels are also exceeding the so-called guidelines.

DR. UFFEN: Are those measurements made available to you easily?

MR. FALKOWSKI: Yes, yes. Yes, the joint health and safety committee in the plant has no difficulty.

20 Now, I should be fair. The measurements that are now taken since the Act came into effect and since we had all these discussions at Royal Industries, are also made available to the local and that's why the company is objecting so much that they have to be sent to the union, in that letter that I partly read out to you that was sent to the ministry.

25 DR. UFFEN: Do the workmen have anything to say about how the measurements are made?

MR. FALKOWSKI: No.

DR. UFFEN: Where? When?

30 MR. FALKOWSKI: No. The Ministry of Labour does come in and the company, of course, took the position that these measurements were high because the workers interfered with them.



DR. UFFEN: How would they do that?

MR. FALKOWSKI: I beg your pardon?

DR. UFFEN: How would they have interfered with

5 the measurements?

MR. FALKOWSKI: The company didn't say how. They just said that the workers interfered with the measurements.

10 DR. DUPRE: Would you indulge me in a few more questions about the committees? How are your relations with Stelco? And of course I ask that specifically because I know of at least one tragedy, that of Mr. Powell, in the Stelco complex.

15 MR. FALKOWSKI: Well, the committees in Stelco, as far as we are concerned, are not according to the provisions of the Act as it exists today. We have been attempting to have the proper system established for at least the past twelve months. There have been meetings between the company and the union. There have been meetings between the Ministry of Labour people in the branch, Mr. McNair is the director of that particular branch, and the local union people. There have been meetings with the Deputy Minister of Labour, 20 with the Minister of Labour, and now there is a person appointed by, I suppose, the Minister, to study the relationship of the committees in how they are meeting the provisions of the Act.

25 Now, how this came all to a head was the inspector... you know the steel companies are partly under the mining regulations and partly under the industrial regulations...and last February an inspector of the mining branch, his name is John Whiting, went in for a regular inspection of the blast furnace area. John Whiting found fifty-nine violations of the Act. John Whiting wanted now to examine the minutes of 30 the safety committee in order to view what recommendations have been made to management about this fifty-nine, or at least some



MR. FALKOWSKI: (contd.) of the fifty-nine, and he couldn't find any minutes. He couldn't find any minutes because there are no minutes.

Now, the company has a safety committee consisting of five members of the union, that meets every month. The other people in the plant are the safety committee members that have no authority to inspect, have no authority to have meetings, and therefore we feel that system is not working properly.

Now, we did have a similar situation in Algoma Steel, and we were able to persuade Algoma management to have a multistructure of committees so that each particular department has a separate committee, and that committee then selects their own people to inspect the physical condition of the workplace, and they meet periodically...like every month or more often...and keep regular minutes. The concerns that are brought up now through that particular safety committee structure, many, many of the concerns, are now being resolved...including environmental. But it took a situation, if you remember last August there were four fatalities in that plant, and the local union has requested a full investigation by the Ministry of Labour of the ineffectiveness of the safety structure. That's when Mr. Cliff Baskin was appointed to assist us.

I have to compliment Mr. Cliff Baskin on his efforts, what he done in there. It is certainly much, much better today than it was eight, nine months ago.

DR. MUSTARD: I guess one might conclude from that that you probably can get safety committees to work?

MR. FALKOWSKI: Yes, Dr. Mustard, you can. But what you need, what you need is a commitment at the top level of management...a full commitment to safety at the top level. If that full commitment at the top is missing, and if the rest of the people in the operation just protect each other and pay lip service to the functioning of safety committees, and





MR. FALKOWSKI: (cont'd.) the functioning is to correct concerns, and we recognize that you cannot correct all the items overnight. We recognize that there are engineering plans needed, time for delivery and all that. We recognize all that. But at least there has to be the commitment at the top and that's not there in the majority of places, of workplaces in Ontario.

DR. MUSTARD: Could you give us an example of where you would feel that the commitment is there?

MR. FALKOWSKI: Now in Algoma Steel.

DR. MUSTARD: Any others?

MR. FALKOWSKI: I have to think very hard. I can't tell you off the top of my head. Most likely I will find some if I search, but there are very, very few.

DR. DUPRE: Could I again pursue the joint committees, but now thinking of a comment in your brief going directly to the written text. I noticed in the brief, pages twenty-three, four, five, around in there, comments to the effect that in your view Bill 70 might well be improved if it took into account some provisions that are now made in the Manitoba legislation and in the Quebec Bill 17. Would you or any of your colleagues care to elaborate on that, Mr. Falkowski?

MR. FALKOWSKI: Ken, would you respond to that, please?

MR. VALENTINE: Certainly, Mr. Chairman. First, our position is that just so long as the traditional master and servant relationship exists at the plant level between the employers and the employees, for just so long safety committees are to be nothing more than window dressing. Just so long as they don't have any real power...in other words, equal power with respect to the decision making on safety and health matters, they will be window dressing and it will be a farce.





MR. VALENTINE: (cont'd.) Bill 17 has taken some bold steps, and I am not saying that we should be going entirely that same route. I would like to see the human relations aspect creep into it much more than is at present apparent.

Bill 17 addresses itself to the question...they clearly understood, I suppose, at the very beginning that unless there was some way of breaking a deadlock between members of the joint safety and health committee, that the problems would continue to be unresolved. They have written into their Bill 17 first the explanatory note, and they talk about the object of the Bill to provide a mechanism for the participation of workers and employers in the elimination of causes of work accidents and occupational diseases. To that end, the Bill sets out the rights and the obligations of workers, employers, owners and suppliers who will be subject to the Act.

But more importantly, in my opinion, they set up the Commission, the Commission of Safety and Health at the Workplace. Really, if you'll bear with my French, it's the Commission de Sante de Securite du Travailleurs.

DR. DUPRE: Tres bien.

MR. VALENTINE: They refer to it all the time. That Commission has the authority and the power to substitute their judgement in those cases where an issue is not resolved, or if in their opinion recommended procedure is not satisfactory, or recommended technological changes are not satisfactory, or suggested protective equipment is not satisfactory. They, from the outside, can substitute their judgement and impose it on the employer so that it now becomes a fact that they must do these things at that work establishment.

Equally important, and as important as it is in the good sense, it has some obvious faults in it as well. The decision of the Commission is final. I suppose somewhere along the line we've got to have a final decision, but if you



5 MR. VALENTINE: (cont'd.) get to a situation where the Commission is structured in such a way that they have obvious biases towards the employer rather than towards the commitment to health and safety, then you could wind up with the same situation. You have to watch against that as well.

10 But all of the Sections of Bill 17 address themselves to the question of health and safety with the clear understanding that health and safety matters should be approached on a preventive basis...in other words, it's no good to react to a situation once it has developed, it's too late then...and much more power to the safety committees and an outside source of intervention in the case of a stalemate. Our experience has been that the stalemate in too many cases is a situation that prevails. We touch on the reasons very briefly in our brief, simply because the person or the group or the organization that has the power will have their own way.

15 Now I don't know if that's replying to your question in any great detail. I had taken the liberty of marking down in advance quite a few of the provisions that I thought would touch on it. I would refer specifically to Section 51 of Bill 17, and then the Section 137 to 165. They are the ones that deal with the formation and powers of the Commission.

20 It's interesting to note also that the inspectors have different authorities under Bill 17 than they do under other provincial pieces of legislation, and the authority of inspectors can be found on pages 177 to page 193...I'm sorry... Sections 173 to Section 193. (sic)

25 DR. DUPRE: Sections 177 to 193?

MR. VALENTINE: Correct.

30 DR. DUPRE: Could I just ask this in a very general way, do you have horror stories...let's put it that way...in other Canadian jurisdictions comparable, say, to what



DR. DUPRE: (cont'd.) appears to be the horror story of Royal Industries' situation?

MR. FALKOWSKI: Yes, yes. Not necessarily all of them are connected with asbestos exposure...

DR. DUPRE: Right.

MR. FALKOWSKI: But you have...Royal Industries is not one of the few. There are many of them. In fact, I'm going out tomorrow morning to one of them, to Cambridge, Dreyfuss Industries. That particular....

DR. UFFEN: I missed that.

MR. FALKOWSKI: Dreyfuss Industries. That particular complaint is since 1974, and again it was not raised on the floor of the legislature yet, but it will be.

DR. UFFEN: What do they manufacture?

MR. FALKOWSKI: Mainly welding boilers and fabricating. Mainly welding problems, welding fume problems in that plant...mainly.

DR. DUPRE: This is a safety committee matter but it's outside the realm of asbestos, is that right?

MR. FALKOWSKI: It has nothing to do with asbestos.

DR. DUPRE: All right. There isn't any generality that you can advance at the moment as to why these committees work, other than the very important one, of course, that you made, namely the attitude at the top? But I was wondering, is there any other generality, you know, in the following sense...for example, to the extent that a firm is, let's say, in a growth industry, on a growth path, in a secure market position, does this tend to contribute positively to labour/ management health and safety relationships in the workplace, as opposed to a firm that, say, is in a declining industry, is marginal, is insecure about its market? Is this a generalization that holds any water?





MR. FALKOWSKI: There is no general pattern in that.

5 DR. DUPRE: There is no general pattern of that sort?

MR. FALKOWSKI: No.

DR. DUPRE: I'm grateful for your comment on that.

10 MR. VALENTINE: That's been our experience right throughout Canada. There is no general pattern. Either the decision of the board of directors is communicated to all levels of management, and if that decision is that we are concerned about safety and health matters then the first-line supervisor has no illusions, he knows that there is a genuine concern for safety and health and he will do those things which should be necessary, co-operating with the safety and health committee, for example.

15 If, on the other hand, safety and health matters is a platitude at the board of directors level, then the first-line supervisors...almost without exception...feel that they are doing a favor the employer by taking shortcuts and not paying any attention to safety and health matters. They don't look at from the long-term basis, they look at it on an immediate term basis.

20 Let's not kid ourselves. Supervisors are primarily responsible for production in their particular area. They see safety and health matters as an infringement on their time. It's a demand that they don't particularly care to meet, and while they may pay lip service to safety and health, on the other hand they may turn around and set an example which would encourage a shortcut and just negate exactly what had been suggested should be done in the way of safety and health.

25 So where the corporation has a board of directors that says safety and health is of concern, we must clean up our act, and if that message is passed down the line



MR. VALENTINE: (cont'd.) vertically and it's loudly and clearly received, under those circumstances I think you'll find a more co-operative attitude.

5 DR. MUSTARD: On the national scene can you identify organizations that do that? That your union is involved with?

10 MR. VALENTINE: Yes, it happened...and I mentioned it in the brief...in Cassiar. They changed their attitude. It was coincidental with a change in managers. They said, yeah, we were wrong, we've allowed an intolerable condition to take place and continue to take place, we will clean up our act. They committed themselves to millions of dollars to clean it up.

15 It happens more frequently in the province of Saskatchewan, because they were the pioneers on forward-looking safety and health legislation and the mandatory safety committees and the powers of committees. I sense it happening or about to happen in the province of Manitoba as well, because I think there are going to be some changes made there... maybe I'm just hoping...within the next year or so.

20 DR. UFFEN: What about the Quebec asbestos mines?

25 MR. VALENTINE: Unfortunately, I don't have any experience with the asbestos mines, with any industry, in fact, in Ontario, because there is a safety and health co-ordinator for the Steelworkers stationed right in the province of Quebec and they do their own thing right there... because of the language difference and things like that.

DR. MUSTARD: Do you know anything about Stelco's operation in Quebec?

MR. VALENTINE: No, I don't.

30 DR. MUSTARD: You brought the example up and I was wondering whether the Quebec Bill, what the performance was like.



5 MR. FALKOWSKI: Dr. Mustard, I listened the other day here to the people from the Quebec Asbestos Mines, and I don't recall the name, but that gentleman that was sitting right on this chair, the second one from the left...

DR. MUSTARD: Yes?

10 MR. FALKOWSKI: He was at the meeting when I went for a visit and tour of the Quebec asbestos mines, two and a half, about two years ago it was. From what he was saying about the dust measurements, the co-operation with the local union, I have been shown...not by management, by our own members...the dust measurement equipment, the reports, the analysis, and I viewed also the open pit operation and what he said about the truck air condition and so on, I've seen that. The mill itself, the equipment in the mill, the way the ventilation was arranged, is comparable if not better than some of the other operations that I have seen...but of course, not in asbestos, we haven't got asbestos operations.

15 If I want to draw an Ontario comparison on the disaster that we had up in the Timmins area, that you also hears here the other day, now there is no comparison whatsoever. It's like day and night.

20 DR. DUPRE: You mean his shop, in your view, is better?

MR. FALKOWSKI: Yes, much better.

25 DR. DUPRE: That notwithstanding that we were told that the Matachewan thing was a model at the time...

MR. FALKOWSKI: Ohhh...well...

DR. DUPRE: That's what you had in mind when you made..?

MR. FALKOWSKI: Right.

DR. DUPRE: Thank you very much.

30 MR. VALENTINE: I might point out that in Baie Verte, in Newfoundland, Advocate Mines, which is an





5 MR. VALENTINE: (cont'd.) asbestos mine, we have had the safety and health people doing their own monitoring for quite some time. But in other respects the employer has not been co-operative with the safety and health committee at all. For example, they had to wage a lengthy strike just over a year ago in order...the strike was strictly for safety and health matters. All the monetary issues have been resolved, this is strictly safety and health. One of the things that the company finally capitulated on was that they would provide separate lockers with a shower in between. In this day and age it's just incredible that people would have to do that.

10 DR. DUPRE: Since you mentioned Baie Verte, may I ask a question in the area that I have the ultimate prerogative as the chain smoker on this Commission? I was given to understand, because I saw it on TV a few months ago, that that plant now apparently either banned smokers from work there, or something like that? Do you know anything about that?

15 MR. VALENTINE: Yes. As a matter of fact I have got quite a...I've got it right here...a writeup on it. I am prepared to leave this with you, Mr. Chairman. Some of the employees say that smoking will cost their jobs. This is what the asbestos workers are told.

20 I think if you take a look at the question of banning the smoking, that is not the right approach. Now, I'm not saying that there isn't a synergistic effect between exposure to asbestos and smoking. What I am saying is that if you are going to ban smoking then you have got to ban it not only at the workplace, but also at your homes. This now becomes an invasion of their civil rights. On the one hand, you know, they are faced with a barrage of advertisements that they should smoke Brand X as opposed to Brand Y, the low tar, and we're convinced or we're told that the in thing to do

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MR. VALENTINE: (cont'd.) is to keep on smoking or to be smoking, and on the other hand they are told if they are smoking they can't work in these places. I think it's unjust.

I think that law was brought into existence probably with the best of intentions, but they are not considering what they are maybe doing when they are approaching it in that way. I think that if they would seriously want to have a group of people quit smoking, they should approach it in some other manner than to just arbitrarily say thou shalt not smoke anymore.

I would think that people that are denied the opportunity to smoke, if they really want to smoke they will go and hide someplace and they'll smoke.

We had the same problem in the uranium mines, and all that happened is the workers that insisted on smoking went to some out-of-the way places to do their smoking and it just so happened that the levels of radiation were higher there than elsewhere, so it really was counterproductive, the whole ban on smoking.

DR. DUPRE: Do either of my nonsmoking colleagues wish to ask questions about smoking, or any other subject?

DR. MUSTARD: I would just make the comment that our chairman, of course...you should know this...is under strict pressure from his two colleagues that if he does smoke there will be a stoppage, because we consider secondary pollution an equally important hazard in our jobs.

DR. UFFEN: Well, we used to go and sneak a smoke in the dust room because nobody could see the smoke for the dust.

MR. VALENTINE: I guess one question that could be asked very seriously though, for a person who works with asbestos and he's a smoker, is it the asbestos that makes it bad for the smoker or is it the smoking that makes it bad for the asbestos worker? Which came first, the chicken or



MR. VALENTINE: (cont'd.) the egg?

5 DR. UFFEN: But we did those things when we  
didn't know what the risks were and what we were letting  
ourselves into. What's difficult to understand that as time  
has gone by and we have come to understand what the health  
effects are, to learn that the changes are not being implemented  
in some areas. A few minutes ago we were talking about  
different organizations. I wanted to ask you about any  
experience you have had with Canada Wire and Cable. Is that  
10 one of your....?

UNIDENTIFIED SPEAKER: That's the United  
Electrical Workers.

DR. UFFEN: It's a different union? All right.

UNIDENTIFIED SPEAKER: They'll be on tomorrow  
15 morning, I think.

DR. DUPRE: May I please, with your indulgence,  
shift to another area covered in your brief? That whole area  
of medical records and confidentiality, I very much appreciated  
everything that is stated on the subject as you weave in and  
out of it from pages fifteen through twenty-one, and I fully  
20 appreciate how you are trying to balance the different  
requirements...the privacy of the individual, access to  
medical research, the works. Could I ask in this connection  
if, by any chance, you have been able yet to get to the report  
of yet another Royal Commission that we've had, the Krever  
Commission on the confidentiality of health records? Are the  
25 kinds of recommendations that Mr. Justice Krever made with  
respect to confidentiality of health records in line with  
your kind of reasoning? I suspect that they are, but I was  
just wondering...that's if you have had a chance to look at  
those sections of the report.

30 MR. VALENTINE: I must confess that I haven't  
yet read the Krever Report. I know it has been issued, but...



5 DR. DUPRE: Could you just take it as notice, because if and when you get around to it, if we are going to have Royal Commissions, you know, maybe sometimes if there are two Royal Commissions that agree on one thing it can add somewhat more weight to the recommendation than would be the case otherwise. So I would appreciate your letting me know, at your leisure, Mr. Valentine, if what Mr. Justice Krever was recommending on the subject is in line with the consideration you have in mind.

10 Dr. Mustard?

15 DR. MUSTARD: I, too, would like to pick up on your substantial comments about the need for records and ask two questions. The first question is, within the Ontario industries that you work with have they now all got in place what you would consider to be a good work record system related to health matters?

MR. FALKOWSKI: No, not generally. We have in one area, I would consider it's a model developing, that is in Dickinson Mines in Red Lake and (unintelligible).

20 Now, that is arsenic exposure. We wanted the Ontario Ministry of Labour to develop a medical surveillance system and we were unable to persuade them to do this. Their mine, Dickinson Mine, hired on our recommendation Dr. Bertrand Conneau of Chicago. He developed a surveillance system, complete examinations in the fullest sense, you most likely are familiar with it. These records are fully available, accessible to the individual...if I may call him, the patient...and, of course, Dr. Conneau.

25 And all other records, biological samples and air monitoring samples are correlated in work areas of individuals and are placed on a computer system, and that computer system is in only one person's control, that is Dr. Conneau.





MR. FALKOWSKI: (cont'd.) Now, of course, we would like to have a similar system implemented in other industries in Ontario. We have had meetings with ministry people, including Tim Armstrong. Up until this moment, that is the model that we feel we would endorse, including the confidentiality.

DR. MUSTARD: The worker has access to his file, then, if he wishes to have it?

MR. FALKOWSKI: Right. Right. Full access.

DR. MUSTARD: And to the medical information in that file?

MR. FALKOWSKI: And to the medical information in that file, yes. Dr. Conneau does come every three months and if there is examination during that period, the records that he had with him from the previous examination, he takes the workers one by one and he explains their data that is contained in his file so that the worker understands what these figures really mean. Such a system is not in place in other industries in Ontario to my knowledge.

DR. MUSTARD: Let me switch, still on this question, you have workers who are exposed to asbestos and who have been exposed to asbestos...you gave a history just recently, Mr. McKay, about the question of identification of what a person is exposed to. What steps are you taking through your joint committees in those industries to see that record systems are established now that link exposure to the workers?

MR. FALKOWSKI: We advised our committees to, in the absence of the co-ordinated approach by the province, we advised our committees that asbestos registers should be established in operations. That means the people that have been identified to have worked in asbestos exposure areas. There is particular disagreement among management as to what are asbestos exposure areas. One of the areas is...like the



MR. FALKOWSKI: (cont'd.) Chairman said earlier... that Powell is a perfect example. He was listed as having worked in a non-asbestos exposure, but he worked in an area where  
5 brake shoes were changed. You know, the dust that collects in the brake drums, they used to blow them out with the air hose and so on. But management argued that, as you well know if you go in the records, that he was not exposed to asbestos, until finally after a lot of argument we established that. Now we attempt to persuade management to do this.

10 Now there is an asbestos register in existence in Stelco, there is one in existence in International Nickel, and Mr. Rothney is the chairman of that committee in International Nickel. If you wish, he can give you some detailed explanation on that.

15 DR. MUSTARD: Would you like to tell us what you've got in place in Nickel? You also have nickel as a problem.

MR. ROTHNEY: Yes, we do. We've had an asbestos register, I guess, within our company for the last three years, approximately. We have several plants, of course, in the Sudbury area, you know, some twenty-one different plants,  
20 and they started, I guess, at Lavack Mill because of a problem being developed there and a request for a start of a register. It has progressed now through most of the plants and is now presently within the register at the Coppercliff smelter.

25 Apart from that, we also have a sulphur dioxide register that is now starting up, so I have to say we are having some success with that.

DR. MUSTARD: Do you as a worker have access to your record in the registry?

MR. ROTHNEY: As a worker I would, yes.

30 DR. MUSTARD: I see. So you have it in place there. Does this mean that joint committees are working at INCO?

MR. ROTHNEY: Very partially. I can say of



MR. ROTHNEY: (cont'd.) the forty committees that we have, I can probably think of four that I would be, and most other people would be satisfied with, out of the forty. So it's coming, but very, very slow.

DR. MUSTARD: Coming back to this information, you go to suggest that there should be a system for linkage of data in this field. I would appreciate your views about how that should be achieved because, as you know, it's a complex problem. The one simple device is to have the social insurance number placed on the record which facilitates linkage of data in work files with death files with other files. Do you have any views about this...and remember, the Krever Commission came out, I believe, not in support of using that kind of linkage system...but since your document advocates something being established...and there's some tremendous value if you can get a system nationally that should be used for information of any of these conditions?

MR. FALKOWSKI: It is very important that we have a national linkage. For instance, examples: We had people...and I give you some names...Gus Vobel, he died in Elliott Lake after exposure to radiation. Gus Vobel came from Cassiar, B.C., where he worked in the asbestos. Nobody knew that he had asbestos exposure, and there may be other people that worked in Ontario operations and ended up there. Therefore, there must be a national register, we would like to call it that way, that keeps the exposure and follows that person until the last day of his life. And the exposure records and the medical records must be linked by a system.

Now, we, of course, do not wish to go against the recommendation of Professor Krever, but a system must be established. There are systems established in other areas, in other countries. Now, I studied a year and a half ago the system in West Germany, and I found it quite adequate.





5 MR. FALKOWSKI: (cont'd.) Of course it needs a lot of...but a lot of people in the medical profession that are plugged into occupational medicine. The priority is there in that area. Of course in Canada, that priority is not here.

10 Like, for instance, look at the people that worked in this famous, good, clean, excellent mines in the Timmins area that we have been told here that the conditions were so nice up there, and his family is just waiting for opening up these operations again...where are these people now? Where are these people from Reeves Mine? If you total them up...Linda Jolley had them listed by approximate number of people...where are they now?

15 We raised this with the Ministry of Labour. We raised this with Mr. Tim Armstrong, and we have been promised by the former Minister of Labour, the Honourable Bette Stephenson, and it's on record in Hansard, recorded, that there would be a register established.

Dr. Elgie was kind of embarrassed when he was reminded of that.

20 You see, our union...and I'm not saying our union alone...labour in Ontario generally has been in the forefront of requesting such a registry, and it's not here.

25 DR. MUSTARD: Can I ask you a question? In this delightful country of ours...my colleague on my right, of course, is an expert in these matters, but how would you get our country to create a national register system with the co-operation of the ten provinces, that would be an effective program that would meet the objectives...

30 MR. FALKOWSKI: Please do not raise with me the federal/provincial jurisdiction since I am sick and tired of the federal/provincial jurisdiction bungle that we are all involved in, the Elliott Lake Uranium Mines, do I have to say any more? In the shipbuilding industry, do I have to





MR. FALKOWSKI: (cont'd.) say any more?

No, anytime you bring in...and I'm not an antifederalist, no, I'm not. But anytime you bring in the feds, things don't work.

DR. MUSTARD: How do we get a national register? Who does it?

MR. FALKOWSKI: Perhaps I should refrain from making any more comments. I almost made one.

MR. VALENTINE: I would suggest we've got to start someplace. That should be started at the provincial level. Bill 17 has just such a provision in Section 52, and I'll read it out. It doesn't mince words. "Every employer shall, in accordance with the regulations, keep and maintain a register of risks connected with certain jobs, identifying in particular the contaminants and dangerous substances connected with certain jobs, and a register of the risks connected with the kind of work performed by each worker in his employ.

The employer must put the registers at the disposal of the members of the health and safety committee, and of the safety representative."

That's pretty clear. Now, I would suggest if that would be done on a provincial basis throughout the country, the next step then would be to put them together on a national basis. We've got to start somewhere.

MR. FALKOWSKI: As we have it now, the provincial jurisdiction for occupational health and safety is by the province, for the province. Now, therefore, the start must be made and if Ontario is as sincere as we are being told from time to time, then there is no excuse that this province is looking for excuses such as, federal/provincial jurisdiction doesn't permit us to do this and that. They can do it within the



MR. FALKOWSKI: (cont'd.) confines of the borders of Ontario. If people leave, why that's a different question.

5 DR. DUPRE: If I may switch to yet another area...the final portion of your brief deals with the public building issue, and in particular addresses the school question, the school asbestos-control question, around which, as you know, we've been whipsawing all week.

10 Now I take it from your brief that your approach to the control options of encapsulation, removal, substitution, etc., seems in some ways, as I read it, to favour alternatives to removal, such as either encapsulation or improved methods of air filtration and so on. Could I ask, please, is one of the real underlying concerns that you have in this area that there  
15 may be a greater occupational hazard to the worker who is directly exposed in control work when the chosen method is removal, than when it is one of the other options?

MR. FALKOWSKI: Linda Jolley explained it rather clearly to you, and we endorse that particular explanation that Linda has given to you. Now as far as public  
20 buildings as such, I am not qualified to talk about it since I am not involved in it.

Perhaps Ken is able to give some comment.

MR. VALENTINE: I would like to address myself to that question. Not completely, in answer to your question. Our main concern ought to be to ensure that children will not  
25 be exposed to asbestos fibres, for the reasons which were outlined in the brief. I think that's good enough. Considering that it's taxpayers' money that is being spent, if exposure can be prevented equally as effectively as by removing the offending substance, and if it can be done more cost-effectively, always bearing in mind to prevent exposure, then we say  
30 follow this route. Because, yes, there is a problem with



MR. VALENTINE: (cont'd.) respect to the removal of the substance itself. In many cases that would create a hazard greater, albeit for a shorter period of time, for the employees than the lower concentrations in the school would over the long span.

In addition to that, it seems very likely that after another ten years or so has passed...in other words, the lifespan or the lifespan of the usefulness of the asbestos building material may have lapsed...then it's very possible that the containment methods or the techniques for removing the offending substances would be much better...in other words, there would be great technological improvements so that the job could be done much more safely then. However, always bearing in mind the one underlying thought that as long as we can detect asbestos fibres in the schools they should be removed or eliminated, let me put it that way, to no detectable level. Again, the same thing exactly for the hospitals, for somewhat different reasons.

As you will notice, our comments with respect to other public buildings is something different, simply because we are dealing with two things here: We are dealing with the exposure to the public in the public buildings, and I would suggest that that is very fleeting exposure, and if those who spout the gospel of acceptable risk really mean what they are saying, then all of society must be prepared to share in part of the cost of the use of asbestos.

If, on the other hand, those same people would now spout that we've got to use public money...and the worker pays the taxes to supply part of the public money...to make public buildings safe for the public, then we are really getting them to admit, to say that the only ones that would have to bear the acceptable risk would be the blue-collar





MR. VALENTINE: (cont'd.) workers themselves. Now this still leaves the problem of the employees in public buildings, and we think there should be consideration given to this, but not to the exclusion of employees in the manufacturing industry, the building industries, or whatever. We think that all of them should be given the same consideration and that is, a clean and a health workplace.

DR. DUPRE: Thank you. Any more questions?

DR. MUSTARD: Well, I would just like to pursue that a little bit. We had a long discussion yesterday evening about this building, etc., and some of the problems. What would be your approach, think should be the approach to containment in building such as this?

MR. VALENTINE: Well, this, in my opinion, would fall into 'other public buildings'. I don't consider this as a school or a hospital, and I would say that if there are asbestos fibres detected in here, and if there's thought or consideration given to cleaning up or to containing the fibres, or to remove the offending material, that equal consideration should be given to cleaning up every workplace in Ontario as well. Otherwise we are being hypocritical. We are saying that there is acceptable risk imposed only on the workers in industry, not workers in government, not the civil service, not the elected representatives. They should be free and clear of this risk.

If that's what they mean, let them say so. Let them declare themselves. Then we'll know exactly where we stand.

DR. DUPRE: No undue priority to the workplace of the Ministry of Labour, in other words?

MR. VALENTINE: I'm sorry?

DR. DUPRE: No unde priority should be accorded to the workplace of the Ministry of Labour?

MR. VALENTINE: Some priority should be though.



DR. DUPRE: Any more questions?

5 Could I please, before I thank you, not duck something because if I remember right you raised quite early in your remarks, Mr. Falkowski, recommendation fourteen, as I understood it, from the OFL brief?

MR. FALKOWSKI: Right.

DR. DUPRE: Was this to the effect that the government of Ontario must immediately drop levels of exposure to no detectable levels?

10 MR. FALKOWSKI: No, that's not the recommendation.

DR. DUPRE: Ah. I...

MR. FALKOWSKI: The recommendation in general is that sure, this Royal Commission will be...let me go back a little while. There have been battles that we had, and there were battles with government and industry for the protection of people, including for asbestos. Now, the Ham Commission took submissions and we told them about the undesirable, unhealthy working environment that people work in. Now, later on, as in some of the instances that I brought before you here, the instance of Mr. McKay, the instance of Mr. Bertrand... and there's many McKays and many Bertrands in the work area now, today. While all this is going on, these people must be protected. Therefore, protection must be implemented now, may it be in some instances with protective devices, maybe by increased and adequate ventilation, may it be by segregation. But these things can be done now. If we talk about this for another ten years, and then maybe another ten years, now we have another twenty years of exposure and I believe and our union believes that while all this is going on, the proper protection must be implemented now. This is recommendation, this is the intent of recommendation fourteen.

30 DR. DUPRE: I see. In particular then, the thrust of what you are saying is that you are looking to any



DR. DUPRE: (cont'd.) and all means, including this Commission, to try to exert what influence it can in the short run...

5 MR. FALKOWSKI: Right.

DR. DUPRE: ...on the implementation side. Never mind, you know, for the longer run how the legislation could be better or the organization could be changed, but just ...

MR. FALKOSWKI: To protect the workers now.

10 DR. DUPRE: ...how to implement, within the frameworks that we now have?

MR. FALKOWSKI: Right.

15 DR. DUPRE: Well, I just want to say one, make one point about the recommendations from this Commission, because I think when you originally raised recommendation fourteen I got lost. I looked at the OFL brief, only found thirteen recommendations in there and then tried to recall what number fourteen might have been. But may I say this, I am repeating myself to some extent, but Royal Commissions are often repetitive. I simply have to remind myself of the following things, and part of what I'm saying is personal, but I feel personally too much compassion for those who are part of the tragic background to this inquiry, I also feel too much respect for individuals who come forward to make presentations, and among other things I feel, to be blunt, too much admiration for your specific organization, to gloss over the following: namely, Royal Commissions, God help us, are relatively slow and ponderous beasts. I flip to something I said back at the end of October at our first meeting: Issues requiring immediate resolution are for elected decision-makers to handle. They are not for Commissioners appointed to advise decision makers on the basis of study and public participation. I feel the feelings that I just outlined to you too much not to remind us all of that, because if nothing else I do want to be able,

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DR. DUPRE: (cont'd.) whether we agree or disagree over the coming months, to keep looking at you all in the eye, in the feeling that at least I haven't created any false expectations.

We are looking at the possibility of certain interim reports, but in the last analysis, a Royal Commission being what it is...and remember I have harboured my own reservations about this device...and again, quite in public...neither I nor my colleagues can turn an elephant into a greyhound.

I'm sorry about that. I wish we could.

MR. FALKOWSKI: I would be less than honest if I did not raise this matter with you, even knowing...and I pointed out in my remarks somewhat my feeling on Royal Commissions...not that I want to downgrade your Royal Commission, but we are raising these matters with the elected representatives, with the people that are directly responsible for them, and I'm raising this with you as well, and any, any recommendation, may it be official or unofficial, and any pressure, may it be official or unofficial, that you can exert in order to get some protection for people that they won't become like Mr. McKay, I would appreciate very much.

DR. DUPRE: Your point is very well taken, and I think and I hope we can always look each other in the eye on these matters.

May I, please, on behalf of my colleagues, thank you all most warmly. The Commission now rises, but it rises until eleven o'clock tomorrow morning. We will be starting one hour later than we have on the earlier days this week.

Thank you all very much.

MR. FALKOWSKI: On behalf of the Steelworkers, Mr. Chairman and members of the Commission, I would like to thank you for being able to discuss with you our concerns.





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MR. FALKOWSKI: Thank you very much.

DR. DUPRE: Thank you.

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THE INQUIRY ADJOURNED

THE FOREGOING WAS PREPARED  
FROM THE TAPED RECORDINGS  
OF THE INQUIRY PROCEEDINGS

Edwina Macht  
EDWINA MACHT







